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Water Resources Data for New Mexico
Water Year 1979

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Albuquerque, NM

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Water resources data for the 1979 water year for New Mexico consist of records of discharge and water quality of streams; stage, contents and water quality of lakes and reservoirs; and water levels and water quality in wells and springs. This report contains discharge records for 229 gaging stations; stage and contents for 24 lakes and reservoirs; water quality for 97 gaging stations, 13 partial-record stations, 2 reservoir, 18 springs and 143 wells; and water levels for 86 observation wells. Also included are 126 crest-stage partial-record stations and 2 low-flow partial-record stations. Additional water data were collected at various sites, not part of the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System operated by the U. S. Geological Survey and cooperating State and Federal agencies in New Mexico.

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PREFACE

This report was prepared by personnel of the New Mexico District of the Water Resources Division of the U.S. Geological Survey under the supervision of James F. Daniel, District Chief, and Alfred Clebsch, Jr., Regional Hydrologist, Central Region. It was done in cooperation with various water agencies in the State of New Mexico.

This report is one of a series issued for each state. General direction for the series is by Philip Cohen, Chief Hydrologist, U.S. Geological Survey, and Robert Dingman, Assistant Chief Hydrologist for Scientific Publications and Data Management.

PB82-102104

Water Resources Data for New Mexico

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-79-1

WATER YEAR 1979

Prepared in cooperation with the State of New Mexico
and with other agencies

CALENDAR FOR WATER YEAR 1979

1978

OCTOBER

S	M	T	W	T	F	S
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31						

1979

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30						

UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. W. Menard, Director

For additional information on the
water program in New Mexico write to
District Chief, Water Resources Division
U.S. Geological Survey
P.O. Box 26659
Albuquerque, New Mexico 87125

1980

U.S. DEPARTMENT OF THE INTERIOR
March 3, 1849

1912

Water Resources Data for New Mexico

U.S. GEOLOGICAL SURVEY WATER-DATA REPORT NM-79-1

WATER YEAR 1979

Prepared in cooperation with the State of New Mexico
and with other agencies

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[Letter after station name designates type of data: (b) biological, (c) chemical, (d) discharge, (e) elevation, stage or contents, (m) microbiological, (s) sediment, (t) water temperature]

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INTRODUCTION

Water-resources data for the current year for New Mexico consist of records of discharge and water quality of streams; stage, contents, and water quality of lakes and reservoirs; and water levels and water quality of ground water. This report contains discharge records for 229 gaging stations; stage and contents for 24 lakes and reservoirs; water quality for 97 gaging stations, 13 partial-record stations, 2 reservoirs, 18 springs, and 143 wells. Also included are 126 crest-stage partial-record stations and 2 low-flow partial-record stations. Additional water data were collected at various sites, not involved in the systematic data collection program, and are published as miscellaneous measurements. These data represent that part of the National Water Data System collected by the U.S. Geological Survey and cooperating State and Federal agencies in New Mexico. Also included are water levels for 86 observation wells.

Records of discharge or stage of streams, and contents or stage of lakes and reservoirs were first published in a series of U.S. Geological Survey water-supply papers entitled, "Surface Water Supply of the United States." Through September 30, 1960, these water-supply papers were in an annual series and then in a 5-year series for 1961-65 and 1966-70. Records of chemical quality, water temperatures, and suspended sediment were published from 1941 to 1970 in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States." Records of ground-water levels were published from 1935 to 1974 in a series of water-supply papers entitled "Ground-Water Levels in the United States." Water-supply papers may be consulted in the libraries of the principal cities in the United States or may be purchased from Branch of Distribution, U.S. Geological Survey, 1200 South Eads Street, Arlington, Virginia 22202.

For water years 1961 through 1974, streamflow data were released by the Geological Survey in annual reports on a state-boundary basis. Water-quality records for water years 1964 through 1974 were similarly released in separate reports. Beginning with the 1975 water year, water data for streamflow, water quality, and ground water are published as an official Survey report on a state-boundary basis. These official Survey reports carry an identification number consisting of the two letter State abbreviation, the last two digits of the water year, and the volume number. For example, the 1976 report is identified as "U.S. Geological Survey Water-Data Report NM-76-1." Water-data reports, on a water-year basis, are for sale by the National Technical Information Service, U.S. Department of Commerce, 5285 Port Royal Road, Springfield, Virginia 22161. Water-data reports, on a calendar year basis, are available from office of State Engineer of New Mexico.

COOPERATION

The U.S. Geological Survey and organizations of the State of New Mexico have had cooperative agreements for the systematic collection of streamflow records since 1930, and for water-quality records since 1940. Organizations that assisted in collecting data through cooperative agreement with the survey are:

Office of State Engineer of New Mexico, S. E. Reynolds, State Engineer.

New Mexico Interstate Stream Commission, S. E. Reynolds, Secretary.

Pecos River Commission, H. M. Babcock, Federal representative and Chairman;
    J. L. Cathey, Commissioner for New Mexico;
    R. H. McGowen, Jr., Commissioner for Texas.

New Mexico State Highway Department, F. L. O'Chesky, Jr., Chief Administrator.

Costilla Creek Compact Commission, S. E. Reynolds, Commissioner for New Mexico;
    C. J. Kuiper, succeeded by W. R. Smith, acting Commissioner for Colorado.

Albuquerque Metropolitan Arroyo Flood Control Authority, R. E. Leonard,
    Executive Engineer.

Financial assistance for the collection of water resources data published in this report was furnished by the Corps of Engineers, U.S. Army, for 30 gaging stations; by the Bureau of Reclamation, U.S. Department of the Interior, for 7 gaging stations; by the Bureau of Indian Affairs, U.S. Department of Interior, for 6 gaging stations; by the Bureau of Land Management, U.S. Department of Interior for 8 gaging stations; by the National Park Service, U.S. Department of Interior, for 1 gaging station; by the Federal Highway Administration, U.S. Department of Transportation, for research study on small drainage areas; and by the U.S. Environmental Protection Agency for several water-quality stations.

Assistance in the form of funds or services was also furnished by the New Mexico Environmental Improvement Division, the New Mexico Institute of Mining and Technology, the city of Ruidoso, and the Carlsbad Irrigation District.

Some records have been collected and computed by contractors in accordance with U.S. Geological Survey specifications and under Geological Survey quality control.

Organizations that furnished data are recognized in the station description.

HYDROLOGIC CONDITIONS

As is common in New Mexico, streamflow varied considerably during the current year. This holds true with respect to both time and geographic location. The variations are related to differences in precipitation, temperature, topography, and geology. The yearly mean discharge for 1979 and the relation to the median of yearly mean discharge for the base period 1941-70 for five index stations is given below.

Station	Discharge ft^3/s	Percent of median
Rayado Creek at Sauble Ranch	21.7	197
Rio Grande below Taos Junction Bridge	1,398	224
Pecos River near Pecos	207	237
Delaware River near Red Bluff	15.4	147
Gila River near Gila	477	492

Runoff was excessive (in the highest 25 percent of record for the base period) in most of the natural streams for an average of about six months during the water year and near median for the remaining months. Warm rain falling on snow caused new peak discharges of record in December in several streams in the Gila River basin and in Rio Ruidoso.

The combined storage in the eleven major reservoirs increased 1,314,000 acre-feet during the water year.

Chemical quality of surface waters continued to improve over most of the state. This was particularly true in the Rio Grande and San Juan River basins where the discharge weighted average of dissolved-solids content was lower than for several preceeding years. Dissolved solids were significantly lower at Rio Grande at Otowi Bridge and San Juan River at Shiprock.

Out of eighty-six wells where ground water levels were observed during the year, new low-water levels were observed at nineteen wells and new high-water levels were observed at seven wells.

DEFINITION OF TERMS

Terms related to streamflow, water-quality, and other hydrologic data, as used in this report, are defined below. See also the table for converting English units to International System of units (SI) on the inside of the back cover.

Acre-foot (AC-FT, acre-ft) is the quantity of water required to cover 1 acre to a depth of 1 foot and is equivalent to 43,560 cubic feet or 325,851 gallons or 1,233.49 cubic meters.

Adenosine triphosphate (ATP) is the primary energy donor in cellular life process. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

Algae are mostly aquatic single-celled, colonial, or multi-celled plants, containing chlorophyll and lacking roots, stems, and leaves.

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

Aquifer is a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

Artesian means confined and is used to describe a well in which the water level stands above the top of the aquifer tapped by the well. A flowing artesian well is one in which the water level is above the land surface.

Bacteria are microscopic unicellular organisms, typically spherical, rodlike, or spiral and threadlike in shape, often clumped into colonies. Some bacteria cause disease, others perform an essential role in nature in the recycling of materials; for example, by decomposing organic matter into a form available for reuse by plants.

Total coliform bacteria are a particular group of bacteria that are used as indicators of possible sewage pollution. They are characterized as aerobic or facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35°C. In the laboratory these bacteria are defined as the organisms which produce colonies within 24 hours when incubated at 35°C ± 1.0°C on M-Endo medium (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

Fecal coliform bacteria are bacteria that are present in the intestines or feces of warm-blooded animals. They are often used as indicators of the sanitary quality of the water. In the laboratory they are defined as all organisms which produce blue colonies within 24 hours when incubated at 44.5°C ± 0.2°C on M-FC medium (nutrient medium for bacterial growth). Their concentrations are expresses as the number of colonies per 100 mL of sample.

Fecal streptococcal bacteria are bacteria found also in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. In the laboratory they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 1.0°C on M-enterrococcus medium (nutrient medium for bacterial growth). Their concentrations are expressed as the number of colonies per 100 mL of sample.

Bed material is the unconsolidated material of which a streambed, lake, pond, reservoir, or estuary bottom is composed.

Biochemical oxygen demand (BOD) is a measure of the quantity of dissolved oxygen, in milligrams per liter, necessary for the decomposition of organic matter by microorganisms, such as bacteria.

Biomass is the amount of living matter present at any given time, expressed as the mass per unit area or volume of habitat.

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m^3), and periphyton and benthic organisms in grams per square meter (g/m^2).

Dry mass refers to the mass of residue present after drying in an oven at 60°C for zooplankton and 105°C for periphyton, until the mass remains unchanged. This mass represents the total organic matter, ash and sediment, in the sample. Dry mass values are expressed in the same units as ash mass.

Organic mass or volatile mass of the living substance is the difference between the dry mass and ash mass, and represents the actual mass of the living matter. The organic mass is expressed in the same units as for ash mass and dry mass.

Wet mass is the mass of living matter plus contained water.

Bottom material: See Bed material.

Cells/volume refers to the number of cells of any organism which is counted by using a microscope and grid or counting cell. Many planktonic organisms are multicelled and are counted according to the number of contained cells per sample, usually milliliters (mL) or liters (L).

Cfs-day is the volume of water represented by the flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, 1.98347 acre feet, 646,317 gallons, or 2,447 cubic meters.

Chemical oxygen demand (COD) is a measure of the chemically oxidizable material in the water, and furnishes an approximation of the amount of organic and reducing material present. The determined value may correlate with natural water color or with carbonaceous organic pollution from sewage or industrial wastes.

Chlorophyll refers to the green pigments of plants. Chlorophyll a and b are the two most common pigments in plants.

Color unit is produced by one milligram per liter of platinum in the form of the chloroplatinate ion. Color is expressed in units of the platinum-cobalt scale.

Contents is the volume of water in a reservoir or lake. Unless otherwise indicated, volume is computed on the basis of a level pool and does not include bank storage.

Control designates a feature downstream from the gage that determines the stage-discharge relation at the gage. This feature may be a natural constriction of the channel, an artificial structure, or a uniform cross section over a long reach of the channel.

Control structure as used in this report is a structure on a stream or canal that is used to regulate the flow or stage of the stream or to prevent the intrusion of salt water.

Cubic feet per second per square mile (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Cubic foot per second (FT^3/S, ft^3/s, cfs) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Discharge is the volume of water (or more broadly, volume of fluid plus suspended sediment), that passes a given point within a given period of time.

Mean discharge (MEAN) is the arithmetic mean of individual daily mean discharges during a specific period.

Instantaneous discharge is the discharge at a particular instant of time.

Discharge weighted average (See weighted average).

Dissolved refers to that material in a representative water sample which passes through a 0.45 µm membrane filter. This is a convenient operational definition used by Federal agencies that collect water data. Determinations of "dissolved" constituents are made on subsamples of the filtrate.

Diversity index is a numerical expression of evenness of distribution of aquatic organisms. The formula for diversity index is:

$$d = -\sum_{i=1}^{s} \frac{n_i}{n} \log_2 \frac{n_i}{n}$$

Where n_i is the number of individuals per taxon, n is the total number of individuals, and s is the total number of taxa in the sample of the community. Diversity index values range from zero, when all the organisms in the sample are the same, to some positive number, when some or all of the organisms in the sample are different.

Drainage area of a stream at a specific location is that area, measured in a horizontal plane, enclosed by a topographic divide from which direct surface runoff from precipitation normally drains by gravity into the river above the specified point. Figures of drainage area given herein include all closed basins, or noncontribution areas, within the area unless otherwise noted.

Drainage basin is a part of the surface of the earth that is occupied by a drainage system, which consists of a surface stream or a body of impounded surface water together with all tributary surface streams and bodies of impounded surface water.

Gage height (G.H.) is the water-surface elevation referred to some arbitrary gage datum. Gage height is often used interchangeably with the more general term "stage," although gage height is more appropriate when used with a reading on a gage.

Gaging station is a particular site on a stream, canal, lake, or reservoir where systematic observations of hydrologic data are obtained.

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magenesium) and is expressed as equivalent calcium carbonate ($CaCO_3$).

Hydrologic unit is a geographic area representing part or all of a surface drainage basin or distinct hydrologic feature as delineated by the Office of Water Data Coordination on the State Hydrologic Unit Maps; each hydrologic unit is identified by an 8-digit number.

Metamorphic stage refers to the stage of development that an organism exhibits during its transformation from an immature form to an adult form. This developmental process exists for most insects, and the degree of difference from the immature stage to the adult form varies from relatively slight to pronounced, with many intermediates. Examples of metamorphic stages of insects are egg-larva-adult or egg-nymph-adult.

Methylene blue active substance (MBAS) is a measure of apparent detergents. This determination depends on the formation of a blue color when methylene blue dye reacts with synthetic.detergent compounds.

Micrograms per gram (UG/G, μg/g) is a unit expressing the concentration of a chemical element as the mass (micrograms) of the element sorbed per unit mass (gram) of sediment.

Micrograms per liter (UG/L, μg/L) is a unit expressing the concentration of chemical constituents in solution as mass (micrograms) of solute per unit volume (liter) of water. One thousand micrograms per liter is equivalent to one milligram per liter.

Milligrams per liter (MG/L, mg/L) is a unit for expressing the concentration of chemical constituents in solution. Milligrams per liter represent the mass of solute per unit volume (liter) of water. Concentration of suspended sediment also is expressed in mg/L, and is based on the mass of sediment per liter of water-sediment mixture.

National Geodetic Vertical Datum of 1929 (NGVD) is a geodetic datum derived from a general adjustment of the first order level nets of both the United States and Canada. It was formerly called "Sea Level Datum of 1929" or "mean sea level" in this series of reports. Although the datum was derived from the average sea level over a period of many years at 26 tide stations along the Atlantic, Gulf of Mexico, and Pacific Coasts, it does not necessarily represent local mean sea level at any particular place.

Organism is any living entity, such as an insect, phytoplankter, or zooplankter.

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per area habitat, usually square meters (m^2), acres, or hectares. Periphyton benthic organisms, and macrophytes are expressed in these terms.

Organism count/volume refers to the number of organisms collected and enumerated in a sample and adjusted to the number per sample volume, usually milliliters (mL) or liters (L). Numbers of planktonic organisms can be expressed in these terms.

Total organism count is the total number of organisms collected and enumerated in any particular sample.

Partial-record station is a particular site where limited streamflow and/or water-quality data are collected systematically over a period of years for use in hydrologic analyses.

Particle-size is the diameter, in millimeters (mm), of suspended sediment or bed material determined by either sieve or sedimentation methods. Sedimentation methods (Pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in either distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

Particle-size classification used in this report agrees with recommendations made by the American Geophysical Union Subcommittee on Sediment Terminology.

The classification is as follows:

Classification	Size (mm)	Method of analysis
Clay..........	0.00024 - 0.004	Sedimentation.
Silt..........	.004 - .062	Sedimentation.
Sand..........	.062 - 2.0	Sedimentation or sieve.
Gravel........	2.0 - 64.0	Sieve.

The particle-size distributions given in this report are not necessarily representative of all particles in transport in the stream. Most of the organic material is removed and the sample is subjected to mechanical and chemical dispersion before analysis in distilled water. Chemical dispersion is not used for native water analysis.

Percent composition is a unit for expressing the ratio of a particular part of a sample or population to the total sample or population, in terms of types, numbers, mass or volume.

Periphyton is the assemblage of microorganisms attached to and growing upon solid surfaces. While primarily consisting of algae, they also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton is a useful indicator of water quality.

Pesticides are chemical compounds used to control the growth of undesirable plants and animals. Major categories of pesticides include insecticides, miticides, fungicides, herbicides, and rodenticides. Insecticides and herbicides, which control insects and plants respectively, are the two categories reported.

Picocurie (PC, pCi) is one trillionth (1×10^{-12}) of the amount of radioactivity represented by a curie (Ci). A curie is the amount of radioactivity that yields 3.7×10^{10} radioactive disintegrations per second. A picocurie yields 2.22 dpm (disintegrations per minute).

Plankton is the community of suspended, floating, or weakly swimming organisms that live in the open water of lakes and rivers.

Phytoplankton is the plant part of the plankton. They are usually microscopic and their movement is subject to the water currents. Phytoplankton growth is dependent upon solar radiation and nutrient substances. Because they are able to incorporate as well as release materials to the surrounding water, the phytoplankton have a profound effect upon the quality of the water. They are the primary food producers in the aquatic environment, and are commonly known as algae.

Blue-green algae are a group of phytoplankton organisms having a blue pigment, in addition to the green pigment called chlorophyll. Blue-green algae often cause nuisance conditions in water.

Diatoms are the unicellular or colonial algae having a siliceous shell. Their concentrations are expressed as number of cells/mL of sample.

Green algae have chlorophyll pigments similar in color to those of higher green plants. Some forms produce algal mats of floating "moss" in lakes. Their concentrations are expressed as number of cells/mL of sample.

Zooplankton is the animal part of the plankton. Zooplankton are capable of extensive movements within the water column, and are often large enough to be seen with the unaided eye. Zooplankton are secondary consumers feeding upon bacteria, phytoplankton, and detritus. Because they are the grazers in the aquatic environment, the zooplankton are a vital part of the aquatic food web. The zooplankton community is dominated by small crustaceans and rotifers.

Polychlorinated biphenyls (PCBs) are industrial chemicals that are mixtures of chlorinated biphenyl compounds having various percentages of chlorine. They are similar in structure to organochlorine insecticides.

Primary productivity is a measure of the rate at which new organic matter is formed and accumulated through photosynthetic and chemosynthetic activity of producer organisms (chiefly green plants). The rate of primary production is estimated by measuring the amount of oxygen released (oxygen method) or the amount of carbon assimilated by the plants (carbon method).

Milligrams of carbon per area or volume per unit time [mg C/(m^2·time) for periphyton and macrophytes and mg C/(m^3·time)] for phytoplankton are the units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon 14). The carbon 14 method is of greater sensitivity than the oxygen light and dark bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

Milligrams of oxygen per area or volume per unit time [mg O_2/(m^2·time) for periphyton and macrophytes and mg O_2/(m^3·time)] for phytoplankton are the units for expressing primary productivity. They define production and respiration rates as estimated from changes in the measured dissolved oxygen concentration. The oxygen light and dark bottle method is preferred if the rate of primary production is sufficient for accurate measurements to be made within 24 hours. Unit time may be either the hour or day, depending on the incubation period.

Recoverable from bottom material the amount of a given constituent that is in solution after a representative sample of bottom material has been digested by a method (usually using an acid or mixture of acids) that results in dissolution of only readily soluble substances. Complete dissolution of all bottom material is not achieved by the digestion treatment and thus the determination represents less than the total amount (that is, less than 95 percent) of the constituent in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Runoff in inches (IN, in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Sediment is solid material that originates mostly from disintegrated rocks and is transported by, suspended in, or deposited from water; it includes chemical and biochemical precipitates and decomposed organic material, such as humus. The quantity, characteristics, and cause of the occurrence of sediment in streams are influenced by environmental factors. Some major factors are degree of slope, length of slope, soil characteristics, land usage, and quantity and intensity of precipitation.

Suspended sediment is the sediment that at any given time is maintained in suspension by the upward components of turbulent currents or that exists in suspension as a colloid.

Suspended-sediment concentration is the velocity-weighted concentration of suspended sediment in the sampled zone (from the water surface to a point approximately 0.3 ft above the bed) expressed as milligrams of dry sediment per liter of water-sediment mixture (mg/L).

Suspended-sediment discharge (tons/day) is the rate at which dry weight of sediment passes a section of a stream or is the quantity of sediment, as measured by dry weight or volume, that passes a section in a given time. It is computed by multiplying discharge times mg/L times 0.0027.

Suspended-sediment load is the quantity of supended sediment passing a section in a specified period.

Total sediment discharge (tons/day) is the sum of the suspended-sediment discharge and the bed-load discharge. It is the total quantity of sediment, as measured by dry weight or volume, that passes a section during a given time.

Mean concentration is the time-weighted concentration of suspended sediment passing a stream section during a 24-hour day.

Sodium adsorption ratio (SAR) is the expression of relative activity of sodium ions in exchange reactions with soil and is an index of sodium or alkali hazard to the soil. This ratio should be known especially for water used for irrigated farmland.

Solute is any substance derived from the atmosphere, vegetation, soil, or rocks that is dissolved in water.

Solution is the homogeneous mixture of solutes and water. The solutes usually comprise a very small fraction of the total weight of the mixture. For this reason, the terms "solution" and "water" are used interchangeably.

Specific conductance is a measure of the ability of a water to conduct an electrical current. It is expressed in micromhos per centimeter at 25°C. Specific conductance is related to the type and concentration of ions in solution and can be used for approximating the dissolved-solids content of the water. Commonly, the concentration of dissolved solids (in milligrams per liter) is about 65 percent of the specific conductance (in micromhos). This relation is not constant from stream to stream, and it may vary in the same source with changes in the composition of the water.

Stage-discharge relation is the relation between gage height (stage) and volume of water per unit of time, flowing in a channel.

Streamflow is the discharge that occurs in a natural channel. Although the term "discharge" can be applied to the flow of a canal, the word "streamflow" uniquely describes the discharge in a surface stream course. The term "streamflow" is more general than "runoff" as streamflow may be applied to discharge whether or not it is affected by diversion or regulation.

Substrate is the physical surface upon which an organism lived.

Natural substrates refers to any naturally occuring emersed or submersed solid surface, such as a rock or tree, upon which an organism lived.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multi-plate samplers (made of hardboard) for benthic organism collection, and plexiglass strips for periphyton collection.

Surface area of a lake is that area outlined on the latest U.S.G.S. topographic map as the boundary of the lake and measured by a planimeter in acres. In localities not covered by topographic maps, the areas are computed from the best maps available at the time planimetered. All areas shown are those for the stage when the planimetered map was made.

Surficial bed material is that part (0.1 to 0.2 ft) of the bed material that is sampled using U.S. Series Bed-Material Samplers.

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45 μm membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45μm membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

Kingdom	Animal
Phylum	Arthropoda
Class	Insecta
Order	Ephemeroptera
Family	Ephemeridae
Genus	Hexageria
Species	Hexagenia limbata

Time-weighted average is computed by multiplying the number of days in the sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the total number of days. A time-weighted average represents the composition of water that would be contained in a vessel or reservoir that had received equal quantities of water from the stream each day for the year.

Tons per acre-foot indicates the dry mass of dissolved solids in 1 acre-foot of water. It is computed by multiplying the concentration of milligrams per liter by 0.00136.

Tons per day is the quantity of substance in solution or suspension that passes a stream section during a 24-hour period.

Total is the total amount of a given constituent in a representative water-suspended sediment sample, regardless of the constituent's physical or chemical form. This term is used only when the analytical procedure assures measurement of at least 95 percent in both the dissolved and suspended phases of the sample. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total." (Note that the word "total" does double duty here, indicating both that the sample consists of a water-suspended sediment mixture and that the analytical method determines all of the constituent in the sample.)

Total in bottom material is the total amount of a given constituent in a representative sample of bottom material. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to judge when the results should be reported as "total in bottom material."

Total load (tons) is the total quantity of any individual constituent, as measured by dry mass or volume, that is dissolved in a specific amount of water (discharge) during a given time. It is computed by multiplying the total discharge, times the mg/L of the consitituent, times the factor 0.0027, times the number of days.

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Weighted average is used in this report to indicate discharge-weighted average. It is computed by multiplying the discharge for a sampling period by the concentrations of individual constituents for the corresponding period and dividing the sum of the products by the sum of the discharges. A discharge-weighted average approximates the composition of water that would be found in a reservoir containing all the water passing a given location during the water year after thorough mixing in the reservoir.

WRD is used as an abbreviation for "Water-Resources Data" in the REVISED RECORDS paragraph to refer to State annual basic-data reports published before 1975.

WSP is used as an abbreviation for "Water-Supply Paper" in references to previously published reports.

DOWNSTREAM ORDER AND STATION NUMBER

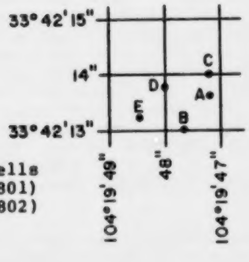
Since October 1, 1950, the order of listing hydrologic-station records in Survey reports is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a station is situated with respect to the stream to which it is immediately tributary is indicated by an indention on a list of stations in the front of the report. Each indention represents one rank. This downstream order and system of indention show which stations are on tributaries between any two stations and the rank of the tributary on which each station is situated.

As an added means of identification, each hydrologic station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete 8-digit number for each station such as 08313000, which appears just to the left of the station name, includes the 2-digit part number "08" plus the 6-digit downstream order number "313000." In this report, the records are listed in downstream order by parts. The part number refers to an area whose boundaries coincide with certain natural drainage lines. Records in this report are in Part 07 (Lower Mississippi River basin), Part 08 (Western Gulf of Mexico basin), and Part 09 (Colorado River basin).

NUMBERING SYSTEM FOR WELLS, SPRINGS, AND MISCELLANEOUS SITES

The 8-digit downstream order station numbers are not assigned to wells, springs, and miscellaneous sites where only random water-quality samples are taken.

The well, spring and miscellaneous site numbering system of the U.S. Geological Survey is based on the grid system of latitude and longitude. The system provides the geographic location of the well, spring, or miscellaneous site and a unique number for each site. The number consists of 15 digits. The first 6 digits denote the degrees of latitude, the next 7 digits denote degrees, minutes, and seconds of longitude, and the last 2 digits (assigned sequentially) identify the wells or other sites within a 1-second grid. See figure 1 below.



Coordinates for miscellaneous
site C (334214104194701)

Coordinates for wells
D (334213104194801)
E (334213104194802)

Coordinates for well A
(334213104194701) and
miscellaneous site B
(334213104194702)

Figure 1.--System for numbering wells, springs, and miscellaneous sites

To provide an additional means of identification and a cross reference to records in older reports, most wells and springs have been assigned a local identifier based on the system of public land surveys. In areas covered by such surveys the local identifier consists of a series of numbers, and letters separated by periods, giving the township, range, section, and tract within a section, in that order. The letters N or S locate the township north or south of the New Mexico base line. The letters E or W locate the range east or west of the New Mexico principal meridian. A zero in a tract number indicates that the well or spring is centrally positioned or has not been located accurately enough to be placed within a tract or quarter section. Three digits in a tract number can locate a well or spring to the nearest 10-acre tract while six digits will locate a site to the nearest 0.16-acre tract. This numbering system is illustrated in WDR NM-75-1 and WSP 1855. In the Navajo Reservation, where public land surveys have not been made, the local identifier is based on a system of letters and numbers. In the example, NR032.0156x0736, the first two letters indicate that the well is in the Navajo Reservation. The three digit number to the left of the decimal indicates one of a series of special quadrangle maps on which the well is located. The two numbers to the right of the decimal separated by the letter x are the coordinates of the well in hundredths of a mile from the northeast corner of the area on the map. The first coordinate indicates the distance west; the second the distance south. The above well is located on map No. 032, 1.56 miles west and 7.36 miles south of the northeast corner.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic bench-mark station is one that provides hydrologic data for a basin in which the hydrologic regimen will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin. Included in this program are stations 08377900, Rio Mora near Terrero; and 09430600, Mogollon Creek near Cliff.

National stream-quality accounting network (NASQAN) is a data collection network designed by the U.S. Geological Survey to meet many of the information demands of agencies or groups involved in national or regional water-quality planning and management. Both accounting and broad-scale monitoring objectives have been incorporated into the network design. Areal configuration of the network is based on river-basin accounting units (identified by 8-digit hydrologic-unit numbers) designated by the Office of Water Data Coordination in consultation with the Water Resources Council. Primary objectives of the network are (1) to depict areal variability of streamflow and water-quality conditions nationwide on a year-by-year basis and (2) to detect and assess long-term changes in streamflow and stream quality. Included in this network are stations 07227140, Canadian River above New Mexico-Texas State line; 08251500, Rio Grande near Lobatos; 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08358300, Rio Grande conveyance channel at San Marcial; 08358400, Rio Grande floodway at San Marcial; 08361000, Rio Grande below Elephant Butte Dam; 08364000 Rio Grande at El Paso, TX; 08370500 Rio Grande below Old Fort Quitman, TX; 08384500, Pecos River below Sumner Dam; 08407500, Pecos River near Red Bluff; 08477110, Mimbres River at Mimbras; 08481500, Rio Tularosa near Bent; 09368000, San Juan River at Shiprock; and 09431500, Gila River near Redrock.

Pesticide program is a network of regularly sampled water-quality stations where samples are collected to determine the concentration and distribution of pesticides in streams where potential contamination could result from the application of the commonly used insecticides and herbicides. Operation of the network is a Federal interagency activity. Included in this program are the hydrologic bench-mark stations and station 08407500, Pecos River near Red Bluff.

Radiochemical program is a network of regularly sampled water-quality stations where samples are collected to be analyzed for radioisotopes. The streams that are sampled represent major drainage basins in the conterminous United States. Included in this program are stations 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08358300, Rio Grande conveyance channel at San Marcial; 08358400, Rio Grande floodway at San Marcial; 09368000, San Juan River at Shiprock; and 09431500, Gila River near Red Rock.

Surveillance network stations are surface-water stations selected for water-quality examinations for water-quality control purposes. These stations are usually located at key regulatory streamflow gaging stations or near the statelines. Data for major inorganic constituents, nutrients, dissolved oxygen, and bacteria are collected at all these stations. Data for trace elements, radiochemicals, and pesticides are collected at some of these stations. Included in this network are stations 07221500, Canadian River near Sanchez; 08276500, Rio Grande below Taos Junction Bridge, near Taos; 08313000, Rio Grande at Otowi Bridge, near San Ildefonso; 08311900, Rio Grande at San Felipe; 08331000, Rio Grande at Isleta; 08354800, Rio Grande conveyance channel at San Acacia; 08354900, Rio Grande floodway at San Acacia; 08358300, Rio Grande conveyance channel at San Marcial; 08358400, Rio Grande floodway at San Marcial; 08363500, Rio Grande at Leasburg Dam, near Las Cruces; 08379500, Pecos River near Anton Chico; 08383500, Pecos River near Puerto de Luna; 08386000, Pecos River near Acme; 08396500, Pecos River near Artesia; and 09368000, San Juan River at Shiprock.

Tritium network is a network of stations which has been established to provide baseline information on the occurrence of tritium in the Nation's surface waters. In addition to the surface-water stations in the network, tritium data are also obtained at a number of precipitation statons. The purpose of the precipitation stations is to provide an estimate sufficient for hydrologic studies of the tritium input to the United States.

EXPLANATION OF STAGE AND WATER-DISCHARGE RECORDS

Collection and computation of data

The base data collected at gaging stations consist of records of stage and measurements of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from either direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at selected time intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey. These methods are described in standard text books, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water-Resources Investigations, book 3, chapter A6.

For stream-gaging stations, rating tables giving the discharge for any stage are prepared from stage-discharge relation curves. If extensions to the rating curves are necessary to express discharge greater than measured, they are made on the basis of indirect measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs), step-backwater techniques, velocity-area studies, and logarithmic plotting. The daily mean discharge is computed from gage heights and rating tables, then the monthly and yearly mean discharge are computed from the daily figures. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is computed by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is basically the shifting-control method.

At some northern stream-gaging stations the stage-discharge relation is affected by ice in the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of gage-height record and occasional winter discharge measurements. Consideration is given to the available information on temperature and precipitation, notes by gage observers and hydrologists, and comparable records of discharge for other stations in the same or nearby basins.

For a lake or reservoir station, capacity tables giving the contents for any stage are prepared from stage-area relation curves defined by surveys. The application of the stage to the capacity table gives the contents, from which the daily, monthly, or yearly change in contents is computed.

If the stage-capacity curve is subject to changes because of deposition of sediment in the reservoir, periodic resurveys of the reservoir are necessary to define new stage-capacity curves. During the period between reservoir surveys, the computed contents may be increasingly in error due to the gradual accumulation of sediment.

For some gaging stations there are periods when no gage-height record is obtained or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods the daily discharges are estimated on the basis of recorded range in stage, prior and subsequent records, discharge measurements, weather records, and comparison with records for other stations in the same or nearby basins. Likewise, daily contents may be estimated on the basis of operator's log, prior

The data in this report generally comprise a description of the station and tabulation of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights or elevations are included for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30. A calendar for the current year is shown on the inside of the front cover to facilitate finding the day of the week for any date.

The description of the gaging station gives the location, drainage area, period of record, notations of revisions of previously published records, type and history of gages, general remarks, average discharge, and extremes of discharge or contents. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD."

Previously published streamflow records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISED RECORDS" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the revised figure was first published is given.

The type of gage currently in use; the datum of the present gage referred to National Geodetic Vertical Datum; and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." National Geodetic Vertical Datum is explained in "DEFINITION OF TERMS" on page 5.

Information pertaining to the accuracy of the discharge records and to conditions which affect the natural flow of the gaging stations is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of records or for stations where changes in water development during the period of record cause the figure to have little significance. Under "EXTREMES" are given, first, the extremes for the period of record; second, information available outside the period of record; and last, those for the current year. Unless otherwise qualified, the maximum discharge (or contents) is the instantaneous maximum corresponding to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur on the same day as the maximum discharge (or contents), it is given separately. Similarly, the minimum is the instantaneous minimum unless otherwise qualified. For some stations peak discharges are listed with EXTREMES FOR THE CURRENT YEAR; if they are, all independent peaks, including the maximum for the year, above the selected base with the time of occurrence and corresponding gage heights are published in tabular format. The base discharge, which is given in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate paragraph following the table of peaks.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month may be expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-FT"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches. In the yearly summary below the monthly summary, the figures shown are the appropriate daily discharges for the calendar and water years.

Footnotes to the table of daily discharge are introduced by the word "NOTE." Footnotes are used to indicate periods for which the discharge is computed or estimated by special methods because of no gage-height record, backwater from various sources, or other unusual conditions. Periods of no gage-height record are indicated if the period is continuous for a month or more or includes the maximum discharge for the year. Periods of backwater from an unusual source or indefinite stage-relation, or of any other unusual condition at the gage site are indicated only if they are a month or more in length and the accuracy of the records is affected. Days on which the stage-discharge relation is affected by ice are not indicated. The methods used in computing discharge for various unusual conditions have been explained in preceding paragraphs.

For most gaging stations on lakes and reservoirs the data presented comprise a description of the station and a table showing daily contents or stage. For some reservoirs a monthly summary table of stage and contents is given. A skeleton table of capacity at given stages is published for all reservoirs for which records are published on a daily basis, but is not published for reservoirs for which only monthly data are given, or if daily stage is published.

Data collected at partial-record stations follow the information for continuous record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. Occasionally, a series of discharge measurements are made within a short time period to investigate the seepage gains or losses along a reach of a stream or to determine the low-flow characteristics of an area. Such measurements are also given in special tables following the tables of partial-record stations.

Accuracy of field data and computed results

The accuracy of streamflow data depends primarily on (1) the stability of the stage-discharge relation or, if the control is unstable, the frequency of discharge measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretations of records.

The station description under "REMARKS" states the degree of accuracy of the records. "Excellent" means that about 95 percent of the daily discharges are within 5 percent; "good" within 10 percent; and "fair" within 15 percent. "Poor" means that daily discharges have less than "fair" accuracy.

Figures of daily mean discharge in this report are shown to the nearest hundredth of a cubic foot per second for discharges of less than 1 ft^3/s; to tenths between 1.0 and 10 ft^3/s; to whole numbers between 10 and 1,000 ft^3/s; and to three significant figures above 1,000 ft^3/s. The number of significant figures used is based solely on the magnitude of the figure. The same rounding rules apply to discharge figures listed for partial-record stations.

Other data available

Information of a more detailed nature than that published for most of the gaging stations such as observations of water temperatures, discharge measurements, gage-height records and rating tables is on file in the district office. Also most gaging station records are available in computer-usable form and many statistical analyses have been made.

Information on the availability of unpublished data or statistical analyses may be obtained from the district office.

EXPLANATION OF WATER-QUALITY RECORDS

Collection and examination of data

Surface-water samples for analyses usually are collected at or near gaging stations. The quality-of-water records are given immediately following the discharge records at these stations.

The descriptive heading for water-quality records gives periods of record for the various types of water-quality data (chemical, specific conductance, biological determination, water temperatures, sediment discharge), period of record, extremes of pertinent data, and general remarks.

For ground-water records, no descriptive statements are given; however, the well number, depth of well, date of sampling and/or other pertinent data are given in the table containing the chemical analyses of the ground water.

Water analysis

Most methods for collecting and analyzing water samples are described in the U.S. Geological Survey Techniques of Water-Resources Investigations listed on a following page.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load.

Chemical-quality data published in this report are considered to be the most representative values available for the stations listed. The values reported represent water-quality conditions at the time of sampling as much as possible, consistent with available sampling techniques and methods of analysis. In the rare case where an apparent inconsistency exists between a reported pH value and the relative abundance of carbon dioxide species (carbonate and bicarbonate), the inconsistency is the result of a slight uptake of carbon dioxide from the air by the sample between measurement of pH in the field and determination of carbonate and bicarbonate in the laboratory.

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum, minimum, and mean values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the district office.

Water temperature

Water temperatures are measured at most of the water-quality stations. In addition, water temperatures are taken at time of discharge measurements for water-discharge stations. For stations where water temperatures are taken manually once or twice daily, the water temperatures are taken at about the same time each day. Large streams have small diurnal temperature change; shallow streams may have a daily range of several degrees and may follow closely the changes in air temperature. Some streams may be affected by waste-heat discharges.

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published.

Sediment

Suspended-sediment concentrations are determined from samples collected by using depth-integrating samplers. Samples usually are obtained at several verticals in the cross section, or a single sample may be obtained at a fixed point and a coefficient applied to determine the mean concentration in the cross sections.

During periods of rapidly changing flow or rapidly changing concentration, samples may have been collected more frequently (twice daily or, in some instances, hourly). The published sediment discharges for days of rapidly changing flow or concentration were computed by the subdivided day method (time-discharge weighted average). Therefore, for those days when the published sediment discharge value differs from the value computed as the product of discharge times mean concentration times 0.0027, the reader can assume that the sediment discharge for that day was computed by the subdivided day method. For periods when no samples were collected, daily loads of suspended sediment were estimated on the basis of water discharge, sediment concentrations observed immediately before and after the periods, and suspended-sediment loads for other periods of similar discharge.

At other stations, suspended-sediment samples were collected periodically at many verticals in the stream cross section. Although data collected periodically may represent conditions only at the time of observations, such data are useful in establishing seasonal relations between quality and streamflow in predicting long-term sediment-discharge characteristics of the stream.

In addition to the records of the quantities of suspended sediment, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included.

Biological data

Generally three types of biological data appear in this report; microbiological data on coliform and streptococci bacteria, phytoplankton data and periphyton data. Methods for the collection and analysis of aquatic biological and aquatic microbiological samples are described by Slack and others (1973). (See reference 5-A4).

Parameter Codes

During 1978, revisions were made in the terminology used to define 143 of the water-quality parameter codes that have been used by the Geological Survey in its publication of water-quality data and in its WATSTORE data system. These revisions were made to achieve consistency in terminology. They do not represent a change in the way the codes have been used in the past or in the association of specific code numbers with identified analytical procedures. A table showing both old and new terminology is printed at the end of 1978 report.

The five-digit codes shown in parentheses in the column headings of the tables in this report are parameter codes which uniquely identify the data. These are standard codes used to identify the data stored in the files of the National Water Data Storage and Retrieval System which was implemented and is managed by the Water Resources Division (WRD) of the U.S. Geological Survey. These codes are identical to those used by the U.S. Environmental Protection Agency (EPA) in all cases where EPA has assigned a parameter code.

EXPLANATION OF GROUND-WATER LEVEL RECORDS

Collection of the data

Only ground-water level data from a basic network of observation wells are published herein. This basic network contains observation wells so located that the most significant data are obtained from the fewest wells in the most important aquifers.

Each well is identified by means of (1) a 15-digit number that is based on latitude and longitude and (2) a local number that is provided for local needs. See figure 1.

Measurements are made in many types of wells, under varying conditions of access and at different temperatures, hence, neither the method of measurement nor the equipment can be standardized. At each observation well, however, the equipment and techniques used are those that will ensure that measurements at each well are consistent.

Water-level measurements in this report are given in feet with reference to either mean sea level (msl) or land-surface datum (lsd). Mean sea level is the datum plane on which the national network of precise levels is based; land-surface datum is a datum plane that is approximately at land surface at each well. If known, the altitude of the land-surface datum above mean sea level is given in the well description. The height of the measuring point (MP) above or below land-surface datum is given in each well description. Water levels in wells equipped with recording gages are reported for every fifth day and the end of each month (eom).

Water levels are reported to as many significant figures as can be justified by the local conditions. For example, in a measurement of a depth to water of several hundred feet, the error in determining the absolute value of the total depth to water may be a few tenths of a foot, whereas the error in determining the net change of water level between successive measurements may be only a hundredth or a few hundredths of a foot. For lesser depths to water the accuracy is greater. Accordingly, most measurements are reported to a hundredth of a foot, but some are given only to a tenth of a foot or a larger unit.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

Thirty-four manuals by the U.S. Geological Survey have been published to date in the seried on techniques describing procedures for planning and executing specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) is on surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises. The reports listed below are for sale by the U.S. Geological Survey, Branch of Distribution, 1200 South Eads Street, Arlington, VA 22202 (authorized agent of the Superintendent of Documents, Government Printing Office). Prices are effective January 1978 but are subject to change.

NOTE: When ordering any of these publications, please give the title, book number, chapter number, and "U.S. Geological Survey Techniques of Water-Resources Investigations".

1-D1. *Water temperature-influential factors, field measurement, and data presentation*, by H. H. Stevens Jr., J.F. Ficke, and G. F. Smoot: USGS—TWRI Book 1, Chapter D1. 1975. 65 pages. $1.60.

1-D2. *Guidelines for collection and field analysis of ground-water samples for selected unstable constituents*, by W. W. Wood: USGS—TWRI Book 1, Chapter D2. 1976. 24 pages. $0.85.

2-D1. *Application of surface geophysics to ground-water investigations*, by A. A. Zohdy, G. P. Eaton, and D. R. Mabey: USGS—TWRI Book 2, Chapter D1. 1974. 116 pages. $1.90.

2-E1. *Application of borehole geophysics to water-resources investigation*, by W. S. Keys and L. M. MacCary: USGS—TWRI Book 2, Chapter E1. 1971. 126 pages. $1.75.

3-A1. *General field and office procedures for indirect discharge measurements*, by M. A. Benson and Tate Dalrymple: USGS—TWRI Book 3, Chapter A1. 1967 30 pages. $1.00.

3-A2. *Measurement of peak discharge by the slope-area method*, by Tate Dalrymple and M. A. Benson; USGS—TWRI Book 3, Chapter A2. 1967. 12 pages. $0.35.

3-A3. *Measurement of peak discharge at culverts by indirect methods*, by G. L. Bodhaine: USGS—TWRI Book 3, Chapter A3. 1968. 60 pages. $0.40.

3-A4. *Measurement of peak discharge at width contractions by indirect methods*, by H. F. Matthai: USGS—TWRI Book 3, Chapter A4. 1967. 44 pages. $1.00.

3-A5. *Measurement of peak discharge at dams by indirect methods*, by Harry Hulsing: USGS—TWRI Book 3, Chapter A5. 1967. 29 pages. $0.35.

3-A6. *General procedure for gaging streams*, by R. W. Carter and Jacob Davidian: USGS—TWRI Book 3, Chapter A6. 1968. 13 pages. $1.00.

3-A7. *Stage measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS—TWRI Book 3, Chapter A8. 1968. 28 pages. $1.40.

3-A8. *Discharge measurements at gaging stations*, by T. J. Buchanan and W. P. Somers: USGS—TWRI Book 3, Chapter A8. 1969. 65 pages. $1.25.

3-A11. *Measurement of discharge by moving-boat method*, by G. F. Smoot and C. E. Novak: USGS—TWRI Book 3, Chapter A11. 1969. 22 pages. $1.20.

3-A12. *Fluorometric procedures for dye tracing*, by J. F. Wilson, Jr.: USGS—TWRI Book 3, Chapter A12. 1968. 31 pages. $0.35 Not currently available.

3-B1. *Aquifer-test design, observation, and data analysis*, by R. W. Stallman: USGS—TWRI Book 3, Chapter B1. 1971. 26 pages. $0.70.

3-B2. *Introduction to ground-water hydraulics, a programmed text for self-instruction*, by G. D. Bennett: USGS—TWRI Book 3, Chapter B2 1976. 172 pages. $2.50.

3-C1. *Fluvial sediment concepts*, by H. P. Guy: USGS—TWRI Book 3, Chapter C1. 1970. 55 pages. $0.65.

3-C2. *Field methods for measurement of fluvial sediment*, by H. P. Guy and V. W. Norman: USGS—TWRI Book 3, Chapter C2. 1970, 58 pages. $2.50.

3-C3. *Computations of fluvial-sediment discharge*, by George Porterfield: USGS—TWRI Book 3, Chapter C3. 1972. 66 pages. $2.10.

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

4-A1. *Some statistical tools in hydrology*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages. $1.60.

4-A2. *Frequency curves*, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages. $0.35.

4-B1. *Low-flow investigations*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages. $0.65.

4-B2. *Storage analyses for water supply*, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages. $0.75.

4-B3. *Regional analyses of streamflow characteristics*, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages. $0.65.

4-D1. *Computation of rate and volume of stream depletion by wells*, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages. $1.10.

5-A1. *Methods for collection and analysis of water samples for dissolved minerals and gases*, by Eugene Brown, M. W. Skougstad, and M. J. Fishman: USGS--TWRI Book 5, Chapter A1. 1970. 160 pages. $2.40.

5-A2. *Determination of minor elements in water by emission spectroscopy*, by P. R. Barnett and E. E. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. $0.80.

5-A3. *Methods for analysis of organic substances in water*, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages. $0.90.

5-A4.* *Methods for collection and analysis of aquatic biological and microbiological samples*, edited by P. E. Greeson, T. A. Ehlke, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages. $20.00.

5-A5.* *Methods for determination of radioactive substances in water and fluvial sediments*, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages. $0.80.

5-C1. *Laboratory theory and methods for sediment analysis*, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages. $2.10.

7-C1. *Finite difference model for aquifer simulation in two dimensions with results of numerical experiments*, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages. $2.30.

8-A1. *Methods of measuring water levels in deep wells*, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages. $0.70.

8-B2. *Calibration and maintenance of vertical-axis type current meters*, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages. $1.10.

*These publications are available ONLY from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. They are in looseleaf format and are subscription items. Additional supplements will be issued to subscribers at no extra cost. Checks should be made payable to Superintendent of Documents. Requester should emphasize to Superintendent of Documents that this is a subscription item.

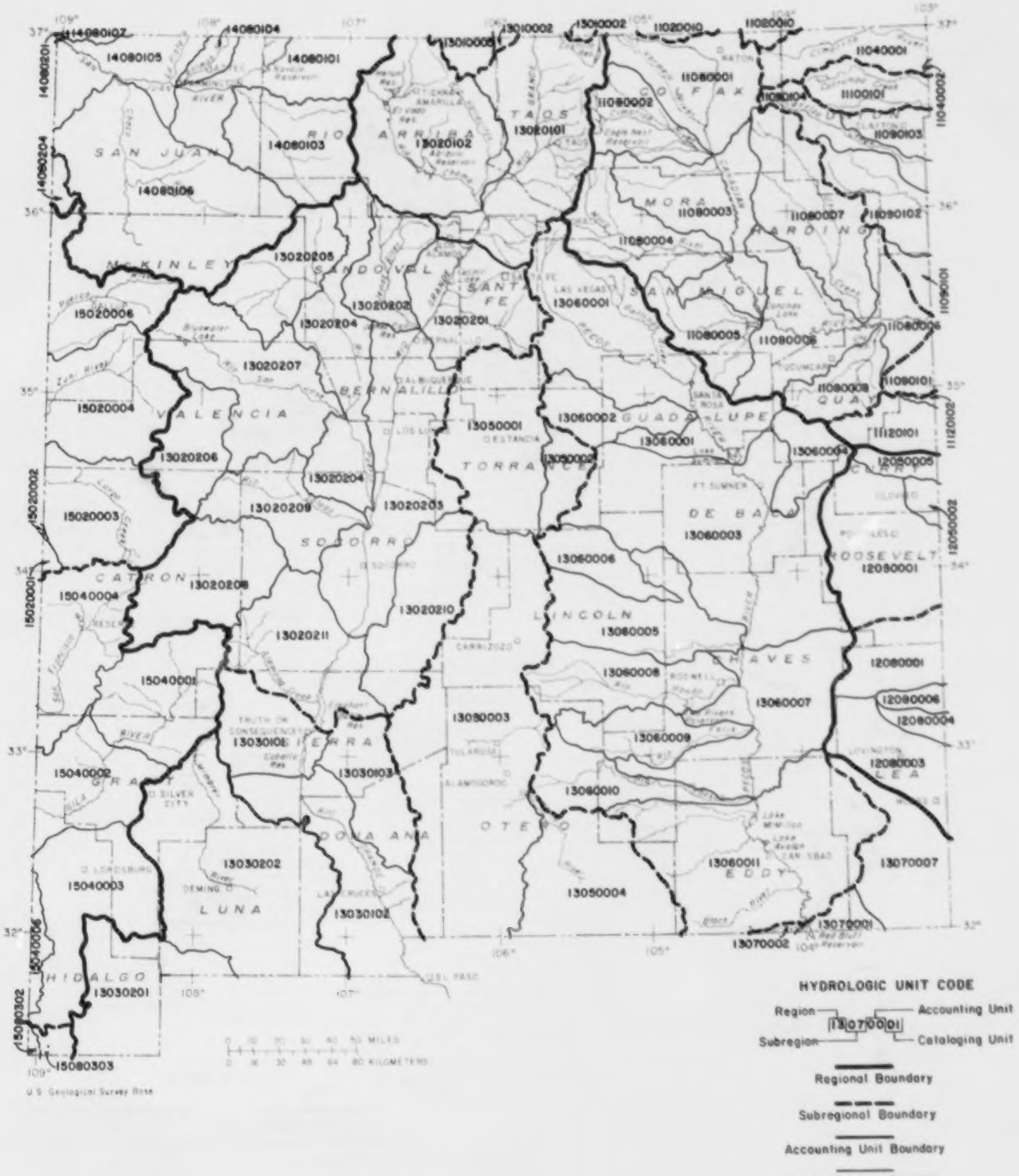
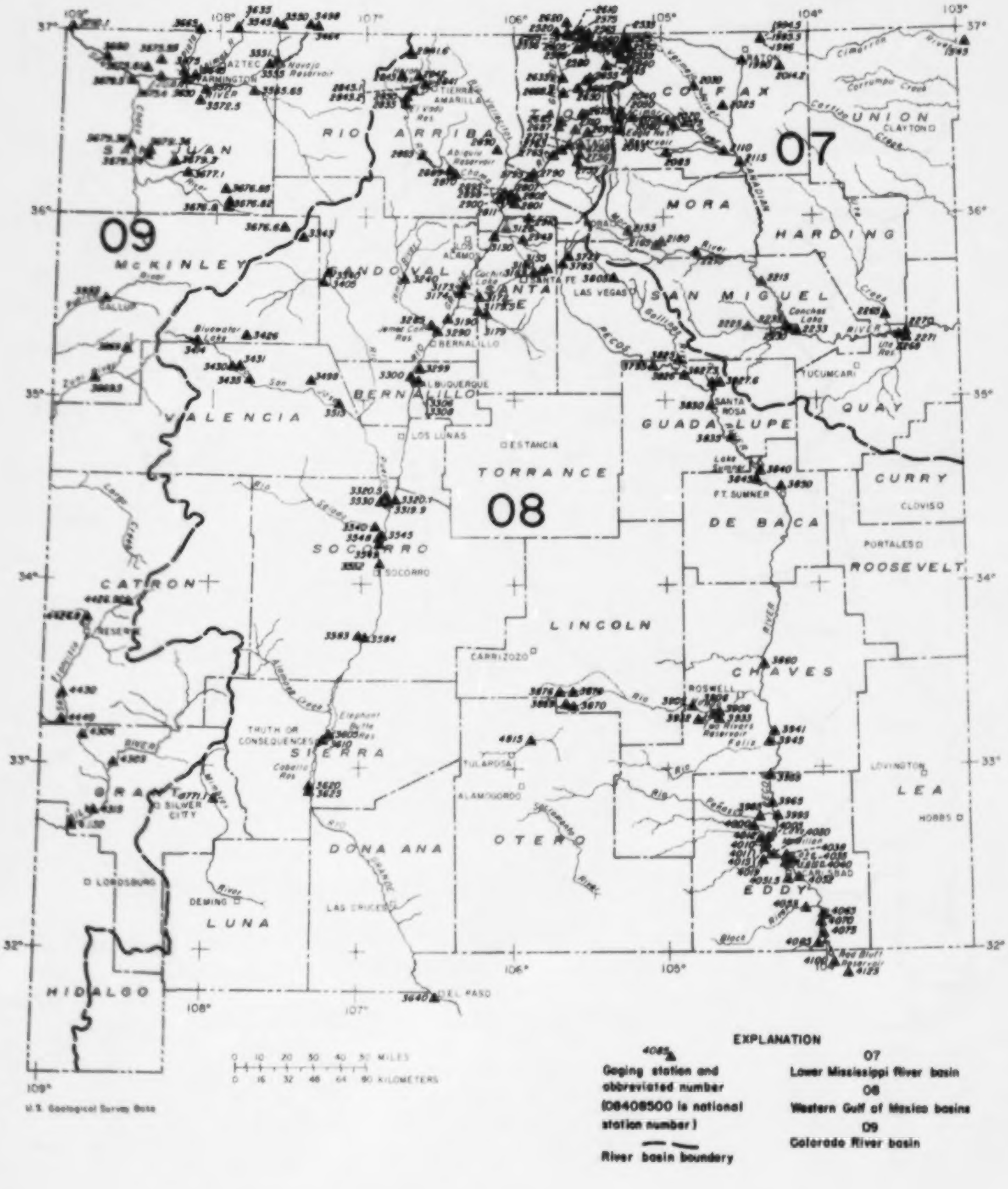


Figure 2.-- Map of New Mexico showing location of hydrologic units.



U.S. Geological Survey Data

Figure 3.--Map of New Mexico showing location of surface-water gaging stations.

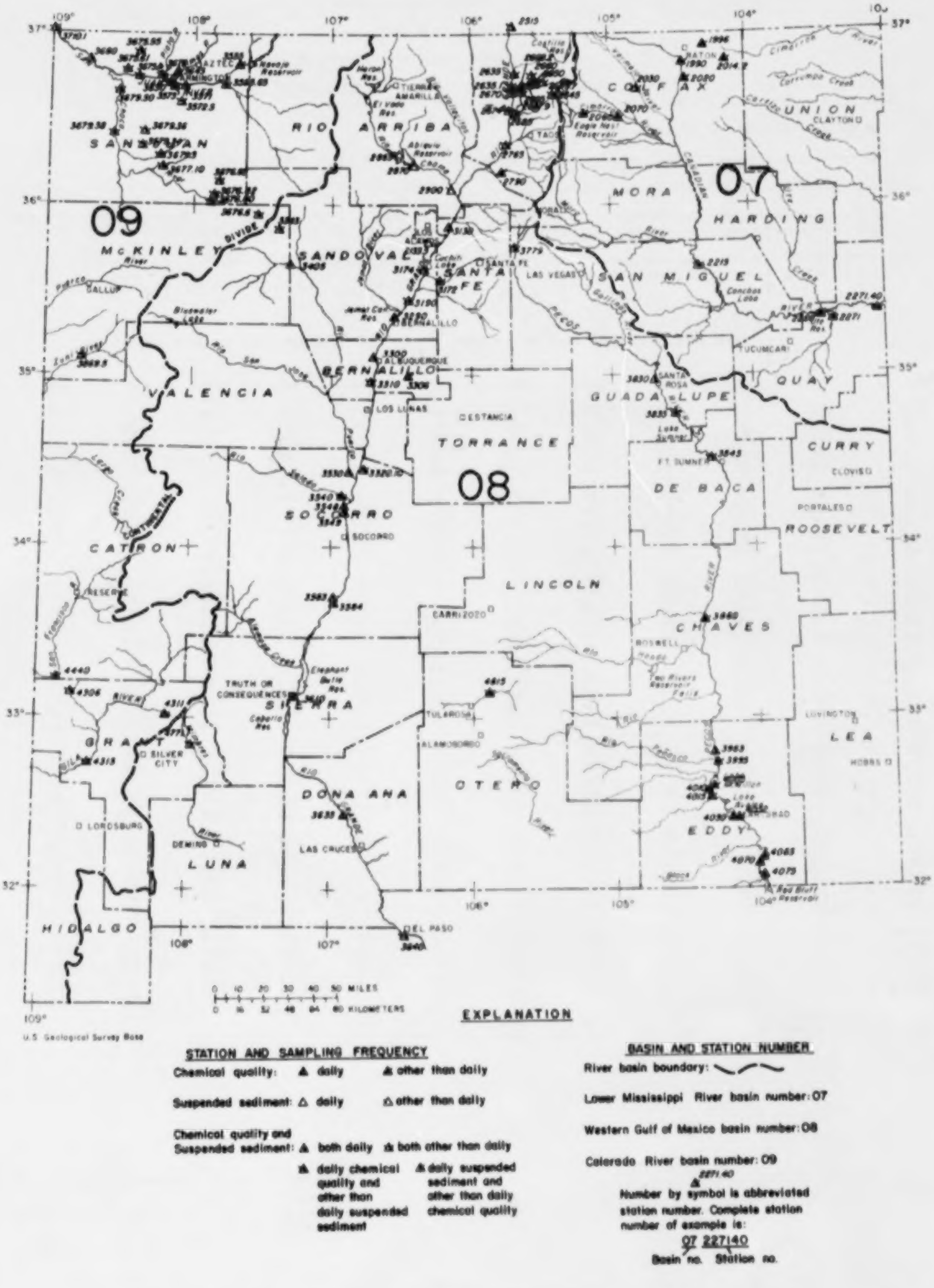


Figure 4.-- Map of New Mexico showing location of water-quality gaging stations.

LOWER MISSISSIPPI RIVER BASIN

ARKANSAS RIVER BASIN

07153410 BENNETT SPRING NEAR CAPULIN, NM

LOCATION.--Lat 36°46'04", long 103°55'01", in NW¼NW¼ sec. 12, T.29 N., R.28 E., Union County, Hydrologic Unit 11040001, on right bank about 100 ft (30 m) below the source and 4.7 mi (7.6 km) northeast of Capulin.

PERIOD OF RECORD.--July 1977 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 6,638 ft (2,023 m), from topographic map.

REMARKS.--Records fair. No diversion above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3.2 ft³/s (0.091 m³/s) Sept. 3, 1977, gage height, 1.36 ft (0.415 m), includes storm runoff between source and gage; minimum, 0.10 ft³/s (0.003 m³/s) July 13, 25, 30, 1977, result of regulation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1.4 ft³/s (0.040 m³/s) July 24, gage height, 0.81 ft (0.247 m); minimum, 0.11 ft³/s (0.003 m³/s) Apr. 9, result of regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	.28	.20	.20	.20	.26	.22	.21	.25	.19	.32	.25
2	.24	.28	.20	.20	.20	.26	.20	.21	.25	.19	.31	.25
3	.24	.24	.20	.21	.20	.26	.21	.21	.25	.18	.31	.23
4	.24	.22	.20	.23	.20	.26	.20	.20	.23	.20	.31	.24
5	.25	.22	.20	.23	.20	.26	.19	.21	.23	.20	.29	.25
6	.23	.21	.19	.25	.21	.26	.19	.20	.23	.22	.29	.25
7	.23	.20	.19	.25	.22	.26	.20	.22	.22	.22	.29	.23
8	.23	.21	.19	.24	.24	.26	.20	.22	.22	.24	.29	.25
9	.23	.21	.20	.26	.24	.26	.21	.22	.22	.25	.28	.25
10	.23	.22	.20	.28	.25	.25	.21	.22	.20	.26	.28	.23
11	.22	.20	.20	.27	.25	.25	.22	.22	.20	.27	.28	.24
12	.22	.20	.20	.25	.26	.26	.20	.23	.20	.28	.27	.25
13	.22	.20	.20	.25	.27	.26	.21	.23	.19	.29	.27	.25
14	.22	.20	.20	.25	.28	.25	.20	.22	.19	.29	.29	.25
15	.20	.20	.21	.25	.27	.24	.20	.22	.18	.31	.29	.25
16	.20	.20	.22	.23	.26	.24	.21	.23	.19	.29	.29	.24
17	.21	.19	.22	.26	.25	.24	.21	.23	.19	.30	.28	.23
18	.21	.19	.23	.26	.25	.25	.20	.23	.17	.30	.26	.24
19	.21	.20	.23	.25	.26	.23	.21	.23	.18	.32	.26	.25
20	.21	.20	.23	.25	.26	.24	.21	.27	.18	.32	.26	.25
21	.22	.20	.22	.25	.26	.25	.22	.27	.17	.34	.26	.25
22	.20	.20	.23	.25	.26	.26	.20	.25	.17	.33	.27	.24
23	.21	.20	.23	.24	.26	.23	.20	.25	.18	.34	.28	.24
24	.23	.20	.23	.24	.26	.23	.20	.25	.17	.38	.26	.25
25	.23	.20	.23	.25	.26	.23	.20	.25	.18	.36	.26	.25
26	.25	.20	.23	.23	.26	.23	.20	.25	.19	.35	.26	.26
27	.27	.20	.23	.20	.26	.24	.20	.31	.18	.34	.28	.27
28	.27	.19	.24	.20	.26	.22	.20	.25	.18	.34	.26	.27
29	.24	.20	.24	.20	---	.23	.21	.23	.18	.35	.26	.26
30	.24	.20	.23	.20	---	.23	.21	.26	.19	.34	.26	.25
31	.25	---	.22	.20	---	.22	---	.27	---	.32	.25	---
TOTAL	7.09	6.26	6.64	7.33	6.85	7.62	6.14	7.27	5.96	8.91	8.62	7.42
MEAN	.23	.21	.21	.24	.24	.25	.20	.23	.20	.29	.28	.25
MAX	.27	.28	.24	.28	.28	.26	.22	.31	.25	.38	.32	.27
MIN	.20	.19	.19	.20	.20	.22	.19	.20	.17	.18	.25	.23
AC-FT	14	12	13	15	14	15	12	14	12	18	17	15

CAL YR 1978 TOTAL 96.11 MEAN .26 MAX .33 MIN .19 AC-FT 191
WTR YR 1979 TOTAL 86.11 MEAN .24 MAX .38 MIN .17 AC-FT 171

07154500 CIMARRON RIVER NEAR KENTON, OK

LOCATION.--Lat 36°55'36", long 102°57'31", in SE¼ sec.4, T.5 N., R.1 E., Cimarron County, Hydrologic Unit 11040001, near right bank on downstream side of pier of county road bridge, 1.5 mi (2.4 km) upstream from North Carrizo Creek, 1.7 mi (2.7 km) northeast of Kenton, 2.2 mi (3.5 km) downstream from Carrizozo Creek, and at mile 594.0 (955.7 km).

DRAINAGE AREA.--1,106 mi² (2,865 km²), of which 68 mi² (176 km²) is probably noncontributing.

PERIOD OF RECORD.--April 1904 to July 1905 (gage heights only), October 1950 to current year.

REVISED RECORDS.--WSP 1711: 1956(M).

GAGE.--Water-stage recorder. Datum of gage is 4,262.08 ft (1,299.082 m) National Geodetic Vertical Datum of 1929 (levels by State Highway Department). April 1904 to July 1905, nonrecording gage at site 0.9 mi (1.4 km) upstream at different datum. Oct. 1, 1950 to Sept. 19, 1967, water-stage recorder at same site and at datum 5.00 ft (1.524 m) higher.

REMARKS.--Records fair. Extensive diversions for irrigation above station.

AVERAGE DISCHARGE.--29 years (water years 1951-79), 23.1 ft³/s (0.654 m³/s), 16,740 acre-ft/yr (20.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,400 ft³/s (1,230 m³/s) Oct. 17, 1965, gage height, 22.32 ft (6.803 m), present datum, from rating curve extended above 7,000 ft³/s (198 m³/s) on basis of contracted-opening measurement of peak flow; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,600 ft³/s (300 m³/s) at 0215 hours July 16, gage height, 16.15 ft (4.923 m), no other peak above base of 2,000 ft³/s (56.6 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.1	.17	.70	1.4	1.2	.13	2.7	.03	90	.00
2	.00	.00	1.1	.12	.96	1.2	.84	.10	2.1	.00	27	.00
3	.00	.00	.43	.04	1.3	1.2	2.4	.73	1.2	.00	11	.00
4	.00	36	.89	.02	1.4	1.4	2.6	1.8	.55	.00	4.0	.00
5	.00	15	1.5	.00	1.3	1.4	1.7	1.6	.58	.00	4.0	.00
6	.00	1.8	.26	.00	1.2	1.3	1.2	1.0	.42	.00	.75	.00
7	.00	.05	.22	.03	1.3	1.3	1.2	.60	.28	238	.28	.00
8	.00	.00	.19	.09	1.1	1.4	.60	.32	.72	30	.99	.00
9	.00	.00	.10	.10	1.9	1.2	.53	.22	2.4	10	.16	.00
10	.00	.00	.20	.10	2.2	1.2	1.1	.25	3.5	3.5	.01	.00
11	.00	.00	.60	.10	2.4	1.2	.31	.24	2.8	.30	.03	.00
12	.00	.00	1.5	.13	2.1	1.0	.40	.20	2.2	.00	.03	.00
13	.00	.00	2.2	.17	2.4	1.0	1.3	.16	1.4	.00	.00	.00
14	.00	.00	2.0	.15	2.6	.98	2.1	.12	.73	.00	.00	.00
15	.00	.00	2.3	.17	2.5	.85	1.6	.06	.30	82	.00	.17
16	.00	.00	1.6	.19	.95	.85	1.2	.01	.15	1740	.00	.04
17	.00	.00	1.2	.53	1.1	.85	.82	.00	.05	88	.70	.01
18	.00	.00	2.5	1.7	1.4	.79	.66	.00	.00	27	20	.00
19	.00	.00	2.4	3.1	2.0	.59	.51	.00	.00	172	3.4	.00
20	.00	.01	1.3	3.4	2.2	.57	.30	.04	.00	163	13	.00
21	.00	.05	.82	2.6	2.2	2.8	.33	1.6	.00	48	8.4	.00
22	.00	.10	1.0	2.6	2.2	5.7	.35	2.9	.00	16	5.6	.00
23	.00	.14	1.1	1.6	1.3	4.0	.50	2.5	.00	5.2	2.8	.00
24	.00	.18	.86	1.4	1.0	2.6	.80	2.7	430	2.5	1.2	.00
25	.00	.24	1.1	1.4	1.0	2.2	1.1	1.8	71	13	.74	.00
26	.00	.32	.61	1.6	1.2	1.9	2.5	1.1	8.7	38	.65	.00
27	.00	.44	1.0	1.3	1.2	1.3	1.7	.70	9.4	16	.30	.00
28	.00	1.0	1.4	1.0	1.3	.94	.55	.50	22	11	.12	.00
29	.00	1.1	.68	.80	---	.65	.31	.35	2.5	5.2	.02	.00
30	.00	1.1	.15	.60	---	.27	.20	.60	.20	86	.00	.00
31	.00	---	.15	.45	---	.59	---	.19	---	38	.00	---
TOTAL	.00	57.53	32.46	25.66	44.41	44.63	30.91	22.52	565.88	2832.73	195.18	.22
MEAN	.000	1.92	1.05	.83	1.59	1.44	1.03	.73	18.9	91.4	6.30	.007
MAX	.00	36	2.5	3.4	2.6	5.7	2.6	2.9	430	1740	90	.17
MIN	.00	.00	.10	.00	.70	.27	.20	.00	.00	.00	.00	.00
AC-FT	.00	114	64	51	88	89	61	45	1120	5620	387	.4

CAL YR 1978 TOTAL 9351.85 MEAN 25.6 MAX 4080 MIN .00 AC-FT 18550
WTR YR 1979 TOTAL 3852.13 MEAN 10.6 MAX 1740 MIN .00 AC-FT 7640

07199000 CANADIAN RIVER NEAR HEBRON, NM

LOCATION.--Lat 36°47'14", long 104°27'42", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, near right bank at downstream end of bridge pier on U.S. Highways 64 and 85, 3.1 mi (5.0 km) north of Hebron, 5.0 mi (8.0 km) upstream from Chicorica Creek, 8.0 mi (12.9 km) south of Raton, and at mile 888.1 (1,429.0 km).

DRAINAGE AREA.--229 mi² (593 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1946 to current year.

REVISED RECORDS.--WSP 1281: 1946, 1947-48(P), 1949. WSP 1921: 1960(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,248 ft (1,904 m), from topographic map. See WSP 1921 for history of changes prior to Aug. 18, 1965.

REMARKS.--Water-discharge records poor. Diversions above station for irrigation of a few hundred acres. Part or all of low flow can be diverted to left bank 1.6 mi (2.6 km) above station for stock water, off-channel storage and irrigation.

AVERAGE DISCHARGE.--33 years, 7.06 ft³/s (0.200 m³/s), 5,110 acre-ft/yr (6.30 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 62,400 ft³/s (1,770 m³/s) June 17, 1965, gage height, 28.2 ft (8.60 m), from floodmarks, present datum, from rating curve extended above 1,300 ft³/s (37 m³/s) on basis of slope-area measurement of peak flow; no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in 1942 reached a stage of about 28 ft (8.5 m), present datum, at site 150 ft (46 m) upstream, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 24	2100	2,560	72.5	5.61	1.710
Sept. 6	1600	a*2,930	83.0	5.80	1.768

a From rating curve extended above 250 ft³/s (7.1 m³/s) as explained above.

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.04	.03	.01	.05	.10	.02	.04	39	.02	5.0	.02
2	.00	.03	.03	.01	.05	.11	.03	.06	4.0	.01	7.8	.01
3	.00	.10	.03	.01	.06	.11	.04	.06	1.0	.01	1.0	.01
4	.00	.20	.02	.01	.06	.11	.02	.06	.50	.01	.20	.03
5	.00	.06	.03	.02	.05	.11	.01	.06	.20	.01	.10	.02
6	.01	.06	.02	.01	.06	.08	.01	.04	.10	.01	.05	145
7	.01	.06	.01	.01	.06	.11	.01	.06	.05	.04	.04	2.5
8	.01	.06	.01	.02	.07	.11	.01	.06	11	.01	.03	.98
9	.01	.04	.01	.02	.07	.08	.02	.06	2.0	.00	.02	.68
10	.01	.04	.02	.02	.07	.08	.02	.06	1.0	.00	.03	.45
11	.02	.04	.03	.03	.08	.08	.02	.04	.50	.00	.03	.32
12	.02	.08	.05	.04	.08	.08	.02	.03	.20	.00	.03	.21
13	.02	.06	.08	.03	.08	.06	.02	.03	.10	.00	.04	.31
14	.02	.06	.06	.02	.08	.04	.02	.03	.05	.00	52	39
15	.02	.02	.04	.02	.08	.06	.03	.04	.04	.00	127	.68
16	.02	.01	.04	.03	.10	.06	.03	.04	.03	.00	10	.17
17	.02	.01	.04	.04	.10	.06	.04	.04	.02	.00	20	.08
18	.02	.01	.05	.04	.10	.06	.02	.04	.02	.12	10	.03
19	.03	.01	.04	.04	.10	.04	.01	.04	.02	.01	5.0	.03
20	.03	.01	.03	.04	.10	.06	.01	4.6	.02	.01	1.0	.02
21	3.2	.01	.02	.04	.09	.06	.01	2.1	.02	.01	.20	.04
22	.21	.02	.02	.03	.09	.04	.02	.04	.02	.00	.08	.03
23	.08	.02	.02	.02	.09	.06	.02	.04	.02	.00	.35	.02
24	.08	.02	.02	.03	.09	.03	.02	.08	3.0	118	.08	.02
25	.08	.02	.03	.04	.09	.03	.02	.08	.50	101	.06	.02
26	.06	.03	.02	.05	.10	.03	.02	.06	.10	5.7	.06	.01
27	.03	.02	.02	.05	.10	.03	.02	.02	.02	1.0	.06	.01
28	.03	.03	.02	.05	.10	.03	.02	11	.02	.10	.04	.02
29	.03	.03	.02	.05	---	.02	.03	1.2	.01	11	.03	.01
30	.03	.03	.02	.04	---	.02	.04	12	.05	.10	.02	.01
31	.03	---	.02	.04	---	.02	---	7.4	---	33	.02	---
TOTAL	4.13	1.23	.90	.91	2.25	1.97	.63	39.51	63.61	270.17	240.37	190.74
MEAN	.13	.041	.029	.029	.080	.064	.021	1.27	2.12	8.72	7.75	6.36
MAX	3.2	.20	.08	.05	.10	.11	.04	12	39	118	127	145
MIN	.00	.01	.01	.01	.05	.02	.01	.02	.01	.00	.02	.01
AC-FT	8.2	2.4	1.8	1.8	4.5	3.9	1.2	78	126	536	477	378

CAL YR 1978 TOTAL 798.60 MEAN 2.19 MAX 385 MIN .00 AC-FT 1580
WTR YR 1979 TOTAL 816.42 MEAN 2.24 MAX 145 MIN .00 AC-FT 1620

NOTE.--No gage-height record Jan. 1 to Feb. 5.

07199000 CANADIAN RIVER NEAR HEBRON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
NOV												
14...	1520	.06	1560	8.3	1.0	620	490	150	60	130	2.3	2.9
DEC												
13...	1440	.08	3500	7.9	1.0	1400	1200	290	160	390	4.6	7.9
JAN												
09...	1410	.02	4390	7.7	.5	1600	1400	330	200	500	5.4	8.5
FEB												
06...	1530	.06	3330	7.8	.5	1400	1100	300	150	360	4.2	7.1
MAR												
06...	1500	.08	2800	7.8	11.0	1100	910	270	100	310	4.1	5.2
APR												
05...	0930	.02	3410	7.8	2.5	1400	1200	310	160	360	4.1	5.2
MAY												
01...	1345	.04	3160	7.7	--	1200	1000	240	150	370	4.6	6.4
30...	1300	.10	2870	7.9	15.5	1200	1000	270	130	260	3.3	8.0
JUL												
26...	1900	6.5	1250	7.3	23.0	500	420	130	43	75	1.5	8.9
AUG												
22...	0920	.04	3230	8.0	15.0	1400	1200	350	130	350	4.1	3.4
SEP												
18...	1300	.03	3370	7.9	18.0	1500	1300	360	150	360	4.0	11

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
NOV											
14...	130	750	15	.2	9.1	1290	--	.01	.02	40	10
DEC											
13...	220	2000	23	.2	8.9	--	3010	.08	--	--	--
JAN											
09...	210	2600	6.7	.2	11	--	3780	.33	--	--	--
FEB											
06...	290	1800	22	.2	9.4	--	2820	.05	--	--	--
MAR											
06...	180	1600	20	.2	7.5	--	2420	.00	--	--	--
APR											
05...	230	1700	27	.2	7.9	--	2710	.03	--	--	--
MAY											
01...	220	1700	83	.3	7.1	2940	2690	.00	.03	100	10
30...	180	1500	20	.4	9.6	--	2310	.14	--	--	--
JUL											
26...	81	580	7.8	.5	10	--	905	.29	--	--	--
AUG											
22...	210	1900	25	.3	9.4	--	2890	.07	--	--	--
SEP											
18...	180	1900	20	.3	9.7	--	2920	.03	--	--	--

07199450 LAKE MALOYA NEAR RATON, NM

LOCATION.--Lat 36°59'02", long 104°22'24", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, near spillway of dam on Chicorica Creek, 6.5 mi (10.5 km) northeast of Raton, and at mile 21.5 (34.6 km).

DRAINAGE AREA.--20.8 mi^2 (53.9 km^2).

PERIOD OF RECORD.--May 1975 to current year.

GAGE.--Nonrecording gage. Altitude of gage is National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Reservoir is formed by an earthfill dam, completed in 1907; capacity, 59 acre-ft (72,700 m^3). Reservoir enlarged in 1916; capacity, 1,130 acre-ft (1.39 hm^3), spillway elevation, 7,479.0 ft (2,279.60 m). Reservoir enlarged again in 1948; capacity, 3,690 acre-ft (4.55 hm^3), revised, spillway elevation, 7,511.0 ft (2,289.35 m). Elevation of lowest outlet, 7,439.0 ft (2,267.41 m). No dead storage. Water is for municipal use of city of Raton.

COOPERATION.--Elevations furnished by city of Raton. Capacity table furnished by New Mexico Interstate Stream Commission.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 3,970 acre-ft (4.90 hm^3) May 31, 1975, elevation, 7,510.79 ft (2,289.289 m); minimum observed, 911 acre-ft (1.12 hm^3) Feb. 28, 1979, elevation, 7,479.85 ft (2,279.858 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 2,480 acre-ft (3.06 hm^3) June 30, elevation, 7,500.1 ft (2,286.030 m); minimum observed, 911 acre-ft (1.12 hm^3) Feb. 28, elevation, 7,479.85 ft (2,279.858 m).

07199550 LAKE ALICE NEAR RATON, NM

LOCATION.--Lat 36°57'15", long 104°23'06", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, near spillway of dam on Chicorica Creek, 4.4 mi (7.1 km) northeast of Raton, and at mile 19.2 (30.9 km).

DRAINAGE AREA.--29.4 mi^2 (76.1 km^2).

PERIOD OF RECORD.--May 1975 to current year.

GAGE.--Nonrecording gage. Altitude of gage is National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Reservoir is formed by an earthfill dam, completed in 1892; capacity 100 acre-ft (123,000 m^3), spillway elevation, 7,078.0 ft (2,157.37 m). Reservoir rehabilitated in 1941; capacity, 71 acre-ft (87,500 m^3), spillway elevation, 7,089.6 ft (2,160.91 m). Elevation of lowest outlet, 7,064.1 ft (2,153.14 m). No dead storage. Water is for municipal use of city of Raton.

COOPERATION.--Elevations furnished by city of Raton.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 70 acre-ft (86,300 m^3) May 31, 1975, elevation, 7,089.55 ft (2,160.895 m); minimum observed, 40 acre-ft (49,300 m^3) May 31, 1978, elevation, 7,083.27 ft (2,158.981 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 62 acre-ft (76,400 m^3) Oct. 31, Nov. 30, Dec. 31; maximum elevation, 7,088.00 ft (2,160.422 m) Oct. 31; minimum estimated, 60 acre-ft (74,000 m^3) Jan. 1 to Sept. 30.

MONTHEND ELEVATION AND CONTENTS, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
	07199450 LAKE MALOYA			07199550 LAKE ALICE		
Sept. 30, 1978.....	7,485.93	1,510	-	7,085.90	52	-
Oct. 31............	7,481.54	1,220	-290	7,088.00	62	+10
Nov. 30............	7,480.80	1,170	- 50	7,087.95	62	0
Dec. 31............	7,481.10	1,190	+ 20	7,087.90	62	0
CAL YR 1978	-	-	-620	-	-	+ 7
Jan. 31, 1979......	7,480.4	941	a- 39	-	b60	- 2
Feb. 28............	7,479.85	911	- 30	-	b60	0
Mar. 31............	7,482.52	1,060	+149	-	b60	0
Apr. 30............	7,487.8	1,410	+350	-	b60	0
May 31.............	7,492.0	1,730	+320	-	b60	0
June 30............	7,500.1	2,480	+750	-	b60	0
July 31............	7,498.57	2,330	-150	-	b60	0
Aug. 31............	7,497.57	2,230	-100	-	b60	0
Sept. 30...........	7,496.16	2,090	-140	-	b60	0
WTR YR 1979	-	-	a+810	-	-	+8

a Computed from capacity table effective Jan. 1, 1979.
b Estimated.

07199600 CHICORICA CREEK NEAR YANKEE, NM

LOCATION.--Lat 36°55'50", long 104°22'24", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on right bank 1.0 mi (1.6 km) upstream from East Fork, 1.8 mi (2.9 km) downstream from Lake Alice, 2.8 mi (4.5 km) southwest of Yankee, 4.2 mi (6.8 km) northeast of Raton, 4.1 mi (6.6 km) downstream from Lake Maloya, and at mile 17.4 (28.0 km).

DRAINAGE AREA.--32.5 mi² (84.2 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1975 to September 1979 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 6,795 ft (2,070 m), from topographic map.

REMARKS.--Water-discharge records fair. Flow regulated by Lake Maloya (station 07199450) and Lake Alice (station 07199550). See tabulation below for monthly diversion from these reservoirs for municipal supply of city of Raton. A ditch on left bank 600 ft (180 m) upstream could divert entire flow of Chicorica Creek during periods of low flow; this ditch was plugged Oct. 11, 1975, and no further diversions have been noted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5.0 ft³/s (0.14 m³/s) June 6, 1976, gage height, 2.40 ft (0.732 m) from rating curve extended above 0.53 ft³/s (0.015 m³/s) on basis of slope-area measurement at gage height 9.25 ft (2.819 m); no flow several days each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 17, 1965, reached a stage of 9.25 ft (2.819 m), present datum, from floodmarks (discharge, 2,230 ft³/s or 63.2 m³/s, by slope-area measurement). The flood of May 18, 1955, was computed as 2,230 ft³/s (63.2 m³/s) by flow-over-dam method at Lake Maloya 4.1 mi (6.6 km) upstream and, according to a local resident, exceeded the flood of June 1965 at the present site.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4.5 ft³/s (0.13 m³/s) May 31, gage height, 2.35 ft (0.716 m), from rating curve extended as explained above; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.01	.20	.02	1.1	.03	.02	.00
2	.00	.00	.00	.00	.00	.01	.21	.01	.82	.03	.00	.00
3	.00	.10	.00	.00	.00	.12	.26	.01	.75	.02	.00	.00
4	.00	.12	.00	.00	.00	.11	.36	.01	.70	.03	.00	.00
5	.00	.00	.00	.00	.00	.20	.30	.01	.60	.03	.00	.00
6	.00	.00	.00	.00	.00	.16	.24	.01	.54	.04	.00	.00
7	.00	.00	.00	.00	.00	.15	.21	.00	.48	.03	.00	.00
8	.00	.00	.00	.00	.00	.15	.18	.00	.93	.02	.00	.06
9	.00	.00	.00	.00	.00	.10	.19	.01	1.2	.01	.00	.01
10	.00	.00	.00	.00	.00	.06	.35	.02	.77	.01	.00	.00
11	.00	.00	.00	.00	.00	.05	.25	.02	.62	.01	.00	.00
12	.00	.03	.00	.00	.00	.07	.20	.02	.54	.01	.00	.00
13	.00	.01	.00	.00	.20	.07	.17	.01	.48	.00	.00	.06
14	.00	.00	.00	.00	.76	.07	.14	.00	.43	.08	.60	.38
15	.00	.00	.00	.00	.72	.05	.12	.00	.39	.04	.68	.09
16	.00	.00	.00	.00	.29	.08	.11	.01	.36	.02	.21	.04
17	.00	.00	.00	.00	.29	.09	.10	.02	.32	.02	.07	.02
18	.00	.00	.00	.00	.25	.10	.08	.02	.27	.03	.09	.00
19	.00	.00	.00	.00	.18	.09	.07	.01	.22	.04	.00	.00
20	.00	.00	.00	.00	.01	.10	.07	.13	.14	.01	.00	.00
21	.00	.00	.00	.00	.00	.23	.06	.25	.11	.00	.00	.14
22	.04	.00	.00	.00	.00	.18	.04	.06	.08	.14	.00	.06
23	.00	.00	.00	.00	.00	.26	.04	.32	.07	.08	.00	.02
24	.00	.00	.00	.00	.00	.28	.04	.27	.07	.04	.00	.00
25	.00	.08	.00	.00	.00	.24	.04	.14	.06	.04	.00	.00
26	.00	.00	.00	.00	.00	.22	.03	.28	.04	.02	.00	.00
27	.00	.00	.00	.00	.00	.23	.03	.20	.03	.03	.00	.04
28	.00	.00	.00	.00	.00	.24	.03	.37	.03	.02	.00	.07
29	.00	.00	.00	.00	---	.25	.03	.35	.02	.07	.00	.02
30	.00	.00	.00	.00	---	.22	.02	.64	.03	.12	.00	.00
31	.00	---	.00	.00	---	.20	---	2.3	---	.02	.00	---
TOTAL	.04	.34	.00	.00	2.70	4.39	4.17	5.52	12.20	1.09	1.67	1.01
MEAN	.001	.011	.000	.000	.096	.14	.14	.18	.41	.035	.054	.034
MAX	.04	.12	.00	.00	.76	.28	.36	2.3	1.2	.14	.68	.38
MIN	.00	.00	.00	.00	.00	.01	.02	.00	.02	.00	.00	.00
AC-FT	.08	.7	.00	.00	5.4	8.7	8.3	11	24	2.2	3.3	2.0
(†)	83	75	75	77	74	82	83	98	120	150	133	109

CAL YR 1978 TOTAL 10.52 MEAN .029 MAX .35 MIN .00 AC-FT 21 † 1120
WTR YR 1979 TOTAL 33.13 MEAN .091 MAX 2.3 MIN .00 AC-FT 66 † 1160

† Diversion, in acre-feet, from Lake Maloya and Lake Alice for municipal supply of city of Raton.

07199600 CHICORICA CREEK NEAR YANKEE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO STEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L) AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
MAR												
06...	0930	.02	810	7.8	1.0	260	70	68	22	91	2.5	3.5
APR												
04...	1520	.53	534	7.7	3.0	78	0	19	7.4	86	4.2	3.9
MAY												
01...	1430	.01	793	8.1	13.0	280	91	68	27	77	2.0	2.4
30...	0840	.46	410	8.2	9.5	140	0	34	14	35	1.3	2.9
JUN												
28...	0930	.03	360	8.4	17.5	--	--	--	--	--	--	--

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
MAR											
06...	190	290	11	.2	10	554	613	.66	.00	50	60
APR											
04...	130	120	3.7	.2	6.9	--	328	.61	--	--	--
MAY											
01...	190	220	7.6	.3	12	536	529	.00	.03	30	10
30...	170	43	3.2	.3	13	--	248	.02	--	--	--
JUN											
28...	--	--	--	--	--	--	--	--	--	--	--

07201420 UÑA DE GATO CREEK BELOW THROTTLE DAM NEAR RATON, NM

LOCATION.--Lat 36°48'52", long 104°13'57", in SE¼SW¼ sec.24, T.30 N., R.25 E., Colfax County, Hydrologic Unit 11080001, on right bank 1.0 mi (1.6 km) downstream from Throttle Dam and 13 mi (21 km) southeast of Raton.

DRAINAGE AREA.--49.5 mi^2 (128.2 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1975 to current year.

REVISED RECORDS.--WRD NM-77-1: 1975 (M), 1976 (M).

GAGE.--Water-stage recorder. Altitude of gage is 6,635 ft (2,020 m), from topographic map.

REMARKS.--Water-discharge records fair except those for winter period and those above 5 ft^3/s (0.14 m^3/s), which are poor. Flow regulated by Throttle Reservoir, capacity 3,300 acre-ft (4.07 hm^3) 1 mi (1.6 km) upstream.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 526 ft^3/s (14.9 m^3/s) Sept. 4, 1977, gage height, 4.24 ft (1.292 m), from rating curve extended above 5.9 ft^3/s (0.17 m^3/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 18 ft^3/s (0.51 m^3/s) May 30, gage height, 2.06 ft (0.628 m), from rating curve extended as explained above; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.05	.18	1.5	5.9	1.3	.54	4.4	.41
2	.00	.00	.00	.00	.10	.14	1.5	6.2	.88	.54	4.4	.43
3	.00	.01	.00	.01	.10	.29	.86	6.3	.70	.60	4.4	.45
4	.00	.01	.00	.02	.10	.19	.15	6.3	.70	.59	4.5	2.2
5	.00	.00	.00	.05	.05	.17	.17	6.4	2.1	.65	4.6	3.5
6	.00	.00	.00	.05	.10	.12	.32	5.8	2.9	.67	4.8	3.5
7	.00	.00	.00	.04	.11	.55	.19	4.1	2.8	.75	4.9	3.5
8	.00	.00	.00	.03	.12	1.3	.15	4.2	3.0	.76	4.9	3.5
9	.00	.00	.00	.10	.13	1.1	.15	5.3	3.0	.82	4.7	3.4
10	.00	.00	.00	1.0	.14	1.4	.15	5.7	2.6	.92	2.3	3.5
11	.00	.00	.00	1.0	.14	2.2	.14	5.7	2.2	2.0	.69	3.5
12	.00	.00	.00	1.0	.14	.76	.14	3.2	.62	2.5	.73	3.5
13	.00	.00	.00	.20	.16	.58	.16	1.5	.59	5.3	.75	4.0
14	.00	.00	.00	.14	.40	.46	.14	3.4	.59	7.9	.97	3.8
15	.00	.00	.00	.10	.48	1.5	.16	4.5	.59	7.0	.70	3.5
16	.00	.00	.00	.10	.28	1.8	.16	4.7	.59	6.5	.52	3.6
17	.00	.00	.00	.09	.20	1.9	.16	4.7	.59	6.2	.59	3.6
18	.00	.00	.00	.09	.18	1.4	.16	4.7	.59	6.4	.44	3.7
19	.00	.00	.00	.08	.17	.99	1.8	5.1	.59	7.5	.42	3.7
20	.00	.00	.00	.08	.18	1.2	2.9	5.3	.59	8.3	.40	3.6
21	.13	.00	.00	.05	.17	1.2	3.0	2.0	.59	8.2	.38	3.7
22	.02	.00	.00	.03	.19	1.2	3.0	1.9	.59	6.4	.36	3.8
23	.00	.00	.00	.02	.19	3.6	3.0	2.5	.59	4.5	.36	3.6
24	.00	.00	.00	.05	.20	1.0	3.0	1.9	.59	4.5	.36	3.6
25	.00	.00	.00	.10	.18	.53	4.5	1.9	.59	4.6	.30	3.7
26	.00	.00	.00	.10	.20	1.2	5.5	1.9	.68	4.8	.34	3.8
27	.00	.00	.00	.08	.25	1.6	4.8	1.8	.59	5.0	.33	3.7
28	.00	.00	.00	.08	.18	1.7	6.2	1.8	.59	4.5	.34	3.8
29	.00	.00	.00	.05	---	1.6	5.6	1.7	.56	4.3	.36	3.8
30	.00	.00	.00	.03	---	1.6	5.7	2.6	.52	4.5	.40	3.8
31	.00	---	.00	.02	---	1.6	---	1.0	---	4.4	.41	---
TOTAL	.15	.02	.00	4.79	4.89	35.06	55.36	120.0	33.41	122.14	54.05	98.19
MEAN	.005	.001	.000	.15	.17	1.13	1.85	3.87	1.11	3.94	1.74	3.27
MAX	.13	.01	.00	1.0	.48	3.6	6.2	6.4	3.0	8.3	4.9	4.0
MIN	.00	.00	.00	.00	.05	.12	.14	1.0	.52	.54	.30	.41
AC-FT	.3	.04	.00	9.5	9.7	70	110	238	66	242	107	195

CAL YR 1978 TOTAL 451.35 MEAN 1.24 MAX 12 MIN .00 AC-FT 895
WTR YR 1979 TOTAL 528.06 MEAN 1.45 MAX 8.3 MIN .00 AC-FT 1050

07201420 UÑA DE GATO CREEK BELOW THROTTLE DAM NEAR RATON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
JAN												
10...	1410	1.5	919	7.8	2.0	410	180	83	49	55	1.2	4.6
FEB												
07...	1225	.33	1060	7.9	1.0	480	220	110	51	55	1.1	4.1
MAR												
06...	1330	.12	912	8.0	13.0	460	230	100	50	52	1.1	3.8
APR												
04...	1145	.16	1130	8.0	2.0	490	280	110	53	71	1.4	2.8
MAY												
01...	1100	5.9	381	7.6	11.5	180	66	44	16	13	.4	3.0
30...	1200	1.7	462	8.4	15.0	200	65	49	20	17	.5	3.2
JUN												
28...	1000	.58	355	7.7	17.5	--	--	--	--	--	--	--
JUL												
26...	1200	4.9	450	8.3	21.0	190	39	46	18	15	.5	3.7
AUG												
22...	1205	.38	425	8.5	23.0	170	65	37	20	19	.6	3.4
SEP												
18...	1115	3.6	463	8.1	16.0	200	65	49	20	17	.5	3.6

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
JAN											
10...	230	280	6.3	.3	10	638	630	.83	.06	100	0
FEB											
07...	260	330	7.5	.4	11	753	728	.45	.04	90	0
MAR											
06...	230	320	7.1	.3	9.3	--	681	.07	--	--	--
APR											
04...	210	390	11	.3	13	--	779	.48	--	--	--
MAY											
01...	110	78	2.3	.2	8.6	244	232	.18	.02	30	10
30...	140	120	2.3	.2	7.1	--	304	.15	--	--	--
JUN											
28...	--	--	--	--	--	--	--	--	--	--	--
JUL											
26...	150	77	2.2	.2	11	--	264	.13	--	--	--
AUG											
22...	110	140	2.4	.3	3.8	--	292	.04	--	--	--
SEP											
18...	140	98	2.5	.1	4.7	285	280	.13	.01	20	<10

07202000 CHICORICA CREEK NEAR HEBRON, NM

LOCATION.--Lat 36°46'13", long 104°23'45", in SW¼SE¼SW¼ sec.4, T.29 N., R.24 E., Colfax County, Hydrologic Unit 11080001, at highway bridge near east boundary of Maxwell Grant, 300 ft (91 m) downstream from Una de Gato Creek, 4.4 mi (7.1 km) northeast of Hebron, and 9 mi (14.5 km) south of Raton.

DRAINAGE AREA.--301 mi^2 (987 km^2).

PERIOD OF RECORD.--Water years 1966 to current year.

REMARKS.--Water discharge measurements were made at the time water-quality samples were collected.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
OCT 17...	1400	.34	1980	7.7	9.5	840	--	170	100	150	2.3	4.7
NOV 13...	1640	.12	4040	8.0	2.0	1400	970	250	200	460	5.3	11
DEC 13...	1355	1.1	3080	7.7	1.5	1100	800	200	140	370	4.9	12
JAN 09...	1500	1.3	2410	7.7	.5	830	590	170	98	270	4.1	9.5
FEB 06...	1625	1.1	2280	6.9	.0	750	590	150	90	260	4.1	12
MAR 06...	1415	1.8	2360	7.3	7.0	860	590	180	100	250	3.7	7.0
APR 04...	1420	1.7	1640	8.2	2.0	650	460	130	80	160	2.7	3.5
MAY 01...	1310	.17	2360	7.7	11.0	980	730	180	130	270	3.7	5.5
30...	1400	.71	2010	8.0	16.5	710	440	170	70	200	3.3	6.5
JUN 20...	1500	.08	1780	8.1	18.0	--	--	--	--	--	--	--
JUL 27...	0900	2.4	1040	7.5	18.0	380	270	79	44	68	1.5	12
AUG 22...	1350	.91	1980	8.0	20.0	720	500	140	91	170	2.8	6.2
SEP 18...	1215	2.8	1370	7.9	16.0	550	330	120	60	95	1.8	6.0

DATE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT 17...	270	870	22	.4	11	1680	--	.02	.01	150	0
NOV 13...	480	2000	83	.3	3.1	--	3300	.02	--	--	--
DEC 13...	280	1400	83	.4	13	--	2440	12	--	--	--
JAN 09...	240	1000	66	.4	13	--	1830	13	--	--	--
FEB 06...	160	1000	57	.5	13	--	1730	12	--	--	--
MAR 06...	270	1000	54	.4	9.8	--	1780	3.8	--	--	--
APR 04...	190	720	18	.3	7.3	--	1230	.07	--	--	--
MAY 01...	250	1200	40	.5	5.1	2170	1980	.24	.06	130	0
30...	270	870	26	.4	9.4	--	1520	.31	--	--	--
JUN 20...	--	--	--	--	--	--	--	--	--	--	--
JUL 27...	110	410	11	.3	12	--	703	.10	--	--	--
AUG 22...	220	910	41	.5	8.1	--	1500	.01	--	--	--
SEP 18...	220	520	15	.3	10	--	971	.56	--	--	--

07202500 EAGLE TAIL DITCH NEAR MAXWELL, NM

LOCATION.--Lat 36°38'55", long 104°33'31", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on left bank 25 ft (8 m) upstream from concrete drop structure, 300 ft (91 m) upstream from Crow Creek, and 7.5 mi (12.1 km) north of Maxwell.

PERIOD OF RECORD.--December 1944 to July 1950 (monthly discharge only October 1945 to July 1950), May 1975 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,110 ft (1,860 m), from topographic map. Prior to May 1975, at site about 200 ft upstream at different datum.

REMARKS.--Records fair. Eagle Tail ditch diverts water from Chicorica Creek for use near Maxwell. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--8 years (water years 1946-49, 1976-79), 4.66 ft³/s (0.132 m³/s), 3,380 acre-ft/yr (4.17 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 217 ft³/s (6.15 m³/s) Aug. 27, 1946, from rating curve extended above 85 ft³/s (2.4 m³/s); no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 93 ft³/s (2.63 m³/s) May 31, from rating curve extended above 55 ft³/s (1.6 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.84	.00	72	.00	82	.00
2	.00	.00	.00	.00	.00	.00	.22	.00	66	.00	3.6	.00
3	.00	.00	.00	.00	.00	.00	.02	.00	21	.00	.09	.00
4	.00	.97	.00	.00	.00	.00	.26	.00	14	.00	.00	.00
5	.00	.17	.00	.00	.00	.00	.03	.00	32	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	9.0	.00	.00	.24
7	.00	.00	.00	.00	.00	.00	.00	.00	3.2	.00	.00	.05
8	.00	.00	.00	.00	.00	.00	.00	.00	3.1	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	4.2	.00	39	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	5.9	.00	29	.00	.00	.00
11	.00	.00	.00	.00	.01	.00	2.7	.00	12	.00	.00	.00
12	.00	.00	.00	.00	.02	.00	1.2	.00	6.6	.00	.00	.00
13	.00	.00	.00	.10	.05	.00	.67	.00	4.2	.00	.00	.00
14	.00	.00	.00	.05	.20	.00	.62	.00	2.8	.00	.00	6.0
15	.00	.00	.00	.00	.10	.00	.16	.00	2.6	.98	13	28
16	.00	.00	.00	.00	.05	.00	.07	.00	2.3	3.3	24	2.5
17	.00	.00	.00	.00	.05	.00	3.8	.00	2.0	.11	4.7	.11
18	.00	.00	.00	.00	.05	.00	1.6	.00	1.9	6.6	1.8	.00
19	.00	.00	.00	.00	.10	.00	.91	.00	1.6	4.8	1.5	.00
20	.00	.00	.00	.00	.05	.00	.22	6.9	1.4	2.0	.00	.00
21	.00	.00	.00	.00	.04	.00	.03	10	1.3	.04	.00	.00
22	.00	.00	.00	.00	.03	.00	.00	10	1.1	.00	.00	.00
23	.00	.00	.00	.00	.02	.00	.00	2.0	.99	2.8	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	36	.91	1.0	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	12	.84	90	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	6.4	.74	11	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	5.9	.39	.78	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	2.6	1.5	1.1	.00	.00
29	.00	.00	.00	.00	---	.00	.00	1.4	.01	.82	.00	.00
30	.00	.00	.00	.00	---	.00	.00	11	.00	.14	.00	.00
31	.00	---	.00	.00	---	1.3	---	93	---	1.5	.00	---
TOTAL	.00	1.14	.00	.15	.77	1.30	23.45	197.20	333.48	126.97	130.69	36.90
MEAN	.000	.038	.000	.005	.028	.042	.78	6.36	11.1	4.10	4.22	1.23
MAX	.00	.97	.00	.10	.20	1.3	5.9	93	72	90	82	28
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	2.3	.00	.3	1.5	2.6	47	391	661	252	259	73

CAL YR 1978 TOTAL 550.74 MEAN 1.51 MAX 127 MIN .00 AC-FT 1090
WTR YR 1979 TOTAL 852.05 MEAN 2.33 MAX 93 MIN .00 AC-FT 1690

NOTE.--No gage-height record Jan. 15 to Feb. 19.

07203000 VERMEJO RIVER NEAR DAWSON, NM

LOCATION.--Lat 36°40'50", long 104°47'08", Colfax County, Hydrologic Unit 11080001, in Maxwell Grant, on left bank 1.3 mi (2.1 km) north of Dawson, 2.3 mi (3.7 km) upstream from Rail Canyon, and at mile 22.5 (36.2 km).

DRAINAGE AREA.--301 mi² (780 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1915 to July 1918, April 1919 to May 1921, January 1927 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1117: 1947, drainage area. WSP 1281: 1932(M), 1934(M), 1936-38(M), 1941-42(P), 1944-46(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,365 ft (1,940 m), from topographic map. See WSP 1311 or 1731 for history of changes prior to Sept. 24, 1953.

REMARKS.--Water-discharge records good except those for winter period, which are poor. Diversions for irrigation of small acreage and mountain meadows above station.

AVERAGE DISCHARGE.--55 years (water years 1916-17, 1920, 1928-79), 17.9 ft³/s (0.507 m³/s), 12,970 acre-ft/yr (16.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1926).--Maximum discharge, 12,600 ft³/s (357 m³/s) June 17, 1965, gage height, 15.25 ft (4.648 m), from rating curve extended above 400 ft³/s (11 m³/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred Aug. 2, 1921, when discharge probably exceeded 10,000 ft³/s (280 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 800 ft³/s (23 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 25	2300	1,620	45.9	6.65	2.027
Aug. 16	1745	a*1,860	52.7	6.95	2.118

a From rating curve extended above 120 ft³/s (3.40 m³/s) as explained above.

Minimum discharge, 0.35 ft³/s (0.010 m³/s) Dec. 12, but may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6	2.8	3.8	2.4	2.1	3.5	3.2	12	102	33	15	9.1
2	1.5	2.6	4.2	2.0	2.5	3.3	2.9	9.5	108	31	14	8.6
3	1.2	3.9	4.6	2.5	2.4	3.5	2.8	13	112	28	13	8.4
4	1.0	7.6	4.4	2.6	2.3	2.7	2.6	20	82	31	12	7.8
5	1.1	6.9	5.0	2.5	2.2	2.5	2.0	16	75	29	11	7.2
6	1.1	5.5	2.9	2.5	2.5	2.3	1.8	13	75	64	11	6.8
7	1.0	4.6	2.0	2.8	2.6	3.0	1.5	15	68	42	10	6.9
8	1.1	4.1	1.5	3.1	2.8	3.8	1.6	17	72	27	10	6.4
9	1.1	3.7	1.1	2.6	3.7	3.9	2.8	19	117	24	10	6.1
10	1.0	3.8	.71	2.4	4.2	3.7	3.7	21	89	20	11	5.9
11	.89	4.2	.54	2.9	4.2	4.1	3.5	20	74	20	12	5.5
12	.71	5.9	.46	2.9	5.0	3.8	3.3	19	68	19	17	5.4
13	.66	5.6	.62	3.3	5.6	3.9	2.8	21	57	18	14	5.9
14	.59	5.1	1.3	3.1	7.4	3.8	3.0	19	61	19	45	8.6
15	.71	5.1	1.6	2.8	8.2	3.7	3.5	16	60	27	150	8.0
16	.89	4.7	1.8	3.9	5.6	4.0	3.7	20	60	21	200	7.6
17	.76	4.1	2.2	3.6	5.0	3.8	4.5	22	57	21	45	6.9
18	1.0	3.8	4.2	4.8	4.2	4.0	4.7	24	51	28	25	5.9
19	1.4	4.7	6.6	6.6	5.3	3.8	6.0	26	46	27	19	5.2
20	1.5	4.4	4.7	4.1	4.2	3.9	12	36	41	20	16	4.9
21	2.3	4.4	3.3	4.0	4.5	5.4	13	60	39	18	16	5.7
22	4.0	4.6	2.3	3.5	3.3	5.0	14	71	38	23	15	7.2
23	3.7	4.6	2.9	3.0	2.7	3.9	14	64	41	18	15	7.0
24	3.2	4.6	3.4	3.2	2.7	3.9	14	81	67	14	15	5.8
25	2.9	5.7	3.1	3.4	2.7	3.9	14	157	57	124	14	4.8
26	2.8	6.0	4.8	3.3	3.0	4.2	12	181	50	77	22	4.5
27	3.0	4.4	4.9	3.0	3.7	4.0	10	160	45	30	25	4.3
28	2.8	3.3	3.4	2.8	3.5	4.0	12	133	43	22	15	3.9
29	2.9	2.6	4.3	2.5	---	3.7	20	126	40	24	12	3.7
30	2.9	3.1	3.4	2.2	---	3.7	20	110	35	24	11	3.7
31	2.7	---	3.1	2.0	---	3.5	---	112	---	16	9.8	---
TOTAL	54.01	136.4	93.13	96.3	108.1	116.2	214.9	1633.5	1930	939	829.8	187.7
MEAN	1.74	4.55	3.00	3.11	3.86	3.75	7.16	52.7	64.3	30.3	26.8	6.26
MAX	4.0	7.6	6.6	6.6	8.2	5.4	20	181	117	124	200	9.1
MIN	.59	2.6	.46	2.0	2.1	2.3	1.5	9.5	35	14	9.8	3.7
AC-FT	107	271	185	191	214	230	426	3240	3830	1860	1650	372

CAL YR 1978 TOTAL 4357.46 MEAN 11.9 MAX 250 MIN .46 AC-FT 8640
WTR YR 1979 TOTAL 6339.04 MEAN 17.4 MAX 200 MIN .46 AC-FT 12570

07203000 VERMEJO RIVER NEAR DAWSON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1945-51, 1964 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
JAN												
12...	1320	3.0	562	8.4	1.5	220	63	63	16	39	1.1	2.0
MAR												
07...	1200	7.2	535	8.4	9.0	220	64	65	15	36	1.0	2.1
APR												
04...	1325	2.9	529	8.4	14.5	--	--	--	--	--	--	--
MAY												
02...	1015	9.5	428	8.2	10.5	170	35	48	11	27	.9	1.8
31...	1000	113	201	7.8	10.0	--	--	--	--	--	--	--
JUN												
29...	1000	42	240	7.9	18.0	--	--	--	--	--	--	--
JUL												
26...	1530	27	212	7.4	25.0	--	--	--	--	--	--	--
SEP												
18...	1530	5.6	445	8.3	20.0	160	24	46	12	30	1.0	2.1

DATE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
JAN											
12...	160	140	6.3	.6	8.8	360	373	.20	.05	20	0
MAR											
07...	160	130	6.1	.6	7.7	350	359	.12	.01	20	0
APR											
04...	--	--	--	--	--	--	--	--	--	--	--
MAY											
02...	130	76	4.3	.7	8.5	263	256	.07	.04	20	0
31...	--	--	--	--	--	--	--	--	--	--	--
JUN											
29...	--	--	--	--	--	--	--	--	--	--	--
JUL											
26...	--	--	--	--	--	--	--	--	--	--	--
SEP											
18...	140	83	3.6	.7	8.9	271	271	.03	.00	30	<10

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
JAN										
12...	1320	3.0	1.5	31	.25	--	--	--	--	--
MAR										
07...	1200	7.2	9.0	17	.33	--	--	--	--	--
APR										
04...	1330	2.9	14.5	15	.12	--	--	--	--	--
MAY										
31...	1000	113	10.0	987	301	--	--	--	--	76
JUL										
26...	1545	27	25.0	2400	175	82	94	98	100	--

07204000 MORENO CREEK AT EAGLE NEST, NM

LOCATION.--Lat 36°33'14", long 105°16'03", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank 175 ft (53 m) upstream from U.S. Highway 64, 250 ft (76 m) northwest of intersection of U.S. Highway 64 and State Highway 38, about 1,000 ft (300 m) upstream from high-water line of Eagle Nest Lake at Eagle Nest.

DRAINAGE AREA.--73.8 mi^2 (191.1 km^2).

PERIOD OF RECORD.--April 1928 to October 1955 and June 1964 to current year (no winter records except water year 1932). Monthly discharge only for some periods, published in WSP 1311. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

REVISED RECORDS.--WSP 1281: 1931(M), 1932, 1935(M), 1939-41(M), 1946-47(M). WSP 1921: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control since Oct. 3, 1952. Datum of gage is 8,197.39 ft (2,498.564 m) National Geodetic Vertical Datum of 1929. See WSP 1921 for history of changes prior to Oct. 26, 1955. Oct. 26, 1955, to Nov. 12, 1974, water-stage recorder at site 160 ft (49 m) downstream at datum 1.41 ft (0.430 m) lower.

REMARKS.--Records fair. Diversions for irrigation of about 1,200 acres (4.9 km^2) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 240 ft^3/s (6.80 m^3/s) Sept. 1, 1946, gage height, 3.10 ft (0.945 m), site and datum then in use; maximum gage height, 3.55 ft (1.082 m) May 12, 1973; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 35 ft^3/s (0.99 m^{3}s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 8	2230	87	2.46	2.92	.890
Apr. 18	2330	111	3.14	3.19	.972
May 9	2030	103	2.92	3.10	.945
May 21	0115	*151	4.28	3.59	1.094
June 8	2315	124	3.51	3.45	1.052
July 16	2200	35	.99	2.36	.719

No flow Oct. 1 to Nov. 3, Nov. 7-12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00					16	74	107	13	5.2	2.4
2	.00	.00					15	74	116	16	4.6	2.2
3	.00	.00					15	84	114	13	4.1	2.2
4	.00	.47					16	81	98	13	3.9	2.1
5	.00	.44					17	70	100	14	3.4	2.0
6	.00	.13					24	69	89	14	3.6	1.9
7	.00	.00					41	75	78	15	3.9	1.9
8	.00	.00					59	81	89	11	3.6	1.9
9	.00	.00					57	93	104	9.4	3.8	1.9
10	.00	.00					47	86	84	8.4	5.2	1.9
11	.00	.00					37	73	75	8.0	9.0	2.5
12	.00	.00					31	63	64	7.2	5.3	2.8
13	.00	.12					27	54	56	6.7	4.3	2.4
14	.00	.12					35	50	49	6.4	7.2	3.0
15	.00	.16					56	51	42	6.7	14	3.8
16	.00	.15					71	58	37	12	12	3.1
17	.00	---					80	66	34	10	7.5	2.7
18	.00	---					95	66	30	9.2	6.0	2.5
19	.00	---					99	67	27	7.4	5.3	2.4
20	.00	---					93	93	27	6.5	5.3	2.3
21	.00	---					87	130	24	6.1	4.8	6.1
22	.00	---					88	122	21	6.4	4.1	3.9
23	.00	---					91	115	18	5.6	3.8	3.0
24	.00	---					94	116	23	4.9	3.4	2.6
25	.00	---					92	130	30	4.7	3.3	2.4
26	.00	---					92	135	22	4.6	3.1	2.2
27	.00	---					84	132	17	4.5	3.6	2.1
28	.00	---					83	126	16	5.0	3.3	2.1
29	.00	---					81	120	15	6.8	2.8	1.9
30	.00	---					77	113	14	5.8	2.8	1.8
31	.00	---					---	107	---	5.9	2.7	---
TOTAL	.00	---	---	---	---	---	1800	2774	1620	267.2	154.9	76.0
MEAN	.000	---	---	---	---	---	60.0	89.5	54.0	8.62	5.00	2.53
MAX	.00	---	---	---	---	---	99	135	116	16	14	6.1
MIN	.00	---	---	---	---	---	15	50	14	4.5	2.7	1.8
AC-FT	.00	---	---	---	---	---	3570	5500	3210	530	307	151

07204500 CIENEGUILLA CREEK NEAR EAGLE NEST, NM

LOCATION.--Lat 36°29'07", long 105°15'54", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank 0.1 mi (0.2 km) downstream from Schoolhouse Draw, 0.4 mi (0.6 km) upstream from high-water line of Eagle Nest Lake, 0.5 mi (0.8 km) east of U.S. Highway 64, and 4.7 mi (7.6 km) south of Eagle Nest.

DRAINAGE AREA.--56 mi² (145 km²).

PERIOD OF RECORD.--April 1928 to September 1955 and June 1964 to current year (no winter records except in water years 1932, 1948 and 1951). Monthly discharge only for some periods, published in WSP 1311 and 1731. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

REVISED RECORDS.--WSP 957: 1941. WSP 1281: Drainage area. WSP 1311: 1932(M), 1935(M), 1937(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control since Sept. 25, 1947. Altitude of gage is 8,195 ft (2,498 m), from topographic map. Prior to May 8, 1928, nonrecording gage, and May 8, 1928 to Sept. 1, 1934, water-stage recorder at site 0.2 mi (0.3 km) downstream at different datums.

REMARKS.--Records fair. Diversions for irrigation of about 1,000 acres (4.0 km²) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 505 ft³/s (14.3 m³/s) June 16, 1965, gage height, 5.61 ft (1.710 m), from rating curve extended above 110 ft³/s (3.1 m³/s); no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft³/s (2.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 7	2100	88	2.49	4.23	1.289	May 26	1800	158	4.47	4.96	1.512
Apr. 24	2045	161	4.56	4.85	1.478	June 1	2145	*164	4.64	*4.98	1.518
May 3	2000	118	3.34	4.52	1.378	June 9	0600	*164	4.64	4.91	1.497
May 21	2015	161	4.56	*4.98	1.518	July 16	1800	94	2.66	4.29	1.308

Minimum discharge determined, 0.29 ft³/s (0.008 m³/s) Oct. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.40	1.7					14	94	94	13	3.9	2.7
2	.36	1.7					13	88	126	11	3.6	2.5
3	.34	6.0					13	103	125	11	3.3	2.5
4	.34	21					14	95	93	12	3.1	2.3
5	.34	12					16	73	93	10	2.8	2.2
6	.35	7.0					32	71	80	10	2.7	2.1
7	.36	5.5					55	75	62	11	2.6	2.2
8	.38	4.7					53	76	92	8.8	2.7	2.3
9	.37	4.2					48	88	151	7.4	3.0	2.4
10	.43	3.8					35	85	98	6.8	3.6	2.5
11	.41	3.8					23	66	77	6.4	5.0	2.3
12	.36	4.4					23	52	65	5.9	3.9	2.3
13	.35	5.0					26	43	56	5.4	3.6	2.1
14	.36	4.5					37	40	48	5.2	6.3	2.8
15	.37	4.4					61	40	43	5.9	14	3.4
16	.43	3.8					78	40	37	16	13	3.0
17	.70	---					84	43	33	10	7.0	2.7
18	.77	---					112	42	29	8.3	5.7	2.4
19	.83	---					128	40	25	6.8	4.7	2.4
20	.84	---					127	75	22	6.1	4.2	2.4
21	1.3	---					114	145	21	5.7	3.8	2.7
22	1.9	---					115	137	19	5.3	3.5	2.7
23	1.7	---					134	121	18	4.5	3.4	2.5
24	2.0	---					146	104	20	4.1	3.1	2.4
25	2.9	---					145	122	37	3.8	3.0	2.1
26	3.0	---					141	145	25	3.7	3.1	2.0
27	2.7	---					126	134	19	4.0	3.8	1.9
28	2.7	---					126	117	16	4.3	3.5	1.9
29	2.5	---					119	96	15	4.9	2.9	1.9
30	2.3	---					108	81	15	5.9	2.8	1.9
31	1.9	---					---	74	---	4.7	3.1	---
TOTAL	33.99	---	---	---	---	---	2266	2605	1654	227.9	134.7	71.5
MEAN	1.10	---	---	---	---	---	75.5	84.0	55.1	7.35	4.35	2.38
MAX	3.0	---	---	---	---	---	146	145	151	16	14	3.4
MIN	.34	---	---	---	---	---	13	40	15	3.7	2.6	1.9
AC-FT	67	---	---	---	---	---	4490	5170	3280	452	267	142

07205000 SIXMILE CREEK NEAR EAGLE NEST, NM

LOCATION.--Lat 36°31'07", long 105°16'29", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left upstream wingwall of concrete control, 250 ft (76 m) downstream from concrete box culvert on U.S. Highway 64, and 2.6 mi (4.2 km) southwest of Eagle Nest.

DRAINAGE AREA.--10.5 mi^2 (27.2 km^2).

PERIOD OF RECORD.--April 1928 to September 1955 (no winter records in water years 1929-31, 1933-55), July 1958 to current year (no winter records subsequent to water year 1975). Prior to October 1930 monthly discharge only, published in WSP 1311. Records for December 1930 to March 1931, published in WSP 732, are unreliable and should not be used. Published as "near Therma" 1928-34.

REVISED RECORDS.--WSP 1311: 1932-33(M), 1935(M), 1943(M). WSP 1681: 1937(M). WSP 1921: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control Sept. 11, 1931 to May 1933, and since Sept. 13, 1934. Datum of gage is 8,195.16 ft (2,497.885 m) National Geodetic Vertical Datum of 1929. Prior to May 18, 1928, nonrecording gage at site 88 ft (27 m) upstream at datum 0.98 ft (0.299 m) higher. May 18, 1928 to Sept. 11, 1938, water-stage recorder at site 88 ft (27 m) upstream at datum 0.43 ft (0.131 m) higher.

REMARKS.--Records good. Diversions for irrigation of about 300 acres (1.2 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--18 years (water years 1932, 1959-75), 2.51 ft^3/s (0.071 m^3/s), 1,820 acre-ft/yr (2.24 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD (1930-55 and SINCE 1957).--Maximum discharge, 128 ft^3/s (3.62 m^3/s) Aug. 5, 1969, gage height, 2.86 ft (0.871 m), from rating curve extended above 32 ft^3/s (0.91 m^3/s); maximum gage height recorded, 3.38 ft (1.030 m) Apr. 2, 1937 (ice jam), site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 15 ft^3/s (0.42 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 8	1700	18	0.51	1.29	0.393
May 3	1115	45	1.27	1.77	.539
May 9	1500	41	1.16	1.73	.527
May 20	2045	*68	1.93	2.10	.640
May 25	2400	54	1.53	1.95	0.594
June 1	2115	54	1.53	1.96	.597
June 8	1830	50	1.42	1.91	.582
July 16	1800	17	.48	1.29	.393

Minimum discharge determined, 0.29 ft^3/s (0.008 m^3/s) Sept. 26, 27, 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.54	.76				---	4.9	26	32	8.9	4.1	1.8
2	.53	.81				---	3.8	27	34	8.8	4.1	1.8
3	.56	1.3				---	3.7	32	37	9.3	4.0	1.5
4	.57	2.6				---	4.0	27	34	8.6	3.8	.70
5	.57	1.5				---	4.3	22	34	8.7	3.7	.56
6	.57	1.2				---	6.7	25	29	8.6	3.7	.50
7	.57	1.1				---	10	32	26	8.3	3.9	.43
8	.57	1.0				---	11	34	34	7.1	3.9	.42
9	.57	.98				---	9.6	36	39	6.5	3.9	.42
10	.58	.92				---	8.6	29	32	5.8	4.4	.42
11	.57	.98				---	5.4	24	28	5.6	4.8	.62
12	.53	1.2				---	5.9	20	25	5.3	4.2	.76
13	.55	1.2				---	6.5	17	23	5.1	3.1	.50
14	.66	1.2				---	9.2	16	22	4.9	3.4	.57
15	.64	1.2				---	13	18	21	5.2	5.8	.63
16	.60	1.2				6.1	15	22	18	7.5	4.8	.53
17	.57	---				5.3	21	25	17	6.3	4.3	.45
18	.57	---				5.3	27	25	16	5.7	4.1	.43
19	.60	---				4.0	28	26	12	5.4	3.9	.43
20	.61	---				4.2	25	37	8.9	5.0	3.9	.42
21	.74	---				4.4	23	45	8.2	4.8	3.7	.48
22	.81	---				4.0	25	40	6.6	4.7	3.4	.47
23	.77	---				3.6	28	36	5.9	4.6	2.1	.40
24	.79	---				3.7	31	35	7.2	4.4	2.3	.37
25	.93	---				4.6	32	40	6.2	4.3	2.1	.34
26	1.2	---				5.7	33	51	4.5	4.2	2.2	.31
27	.96	---				6.7	27	45	3.7	4.2	2.2	.31
28	.92	---				8.9	27	39	3.2	4.2	2.0	.31
29	.82	---				6.7	28	35	7.4	4.3	1.9	1.0
30	.78	---				6.3	27	31	9.1	4.5	2.0	1.8
31	.76	---				5.3	---	28	---	4.4	2.0	---
TOTAL	21.01	---	---	---	---	---	503.6	945	583.9	185.2	107.7	19.68
MEAN	.68	---	---	---	---	---	16.8	30.5	19.5	5.97	3.47	.66
MAX	1.2	---	---	---	---	---	33	51	39	9.3	5.8	1.8
MIN	.53	---	---	---	---	---	3.7	16	3.2	4.2	1.9	.31
AC-FT	42	---	---	---	---	---	999	1870	1160	367	214	39

07205500 EAGLE NEST LAKE NEAR EAGLE NEST, NM

LOCATION.--Lat 36°31'53", long 105°13'44", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, at upstream face of Eagle Nest Dam on Cimarron River, 2.5 mi (4.0 km) southeast of Eagle Nest, 6.7 mi (10.8 km) west of Ute Park, and at mile 48.7 (78.4 km).

DRAINAGE AREA.--167 mi² (433 km²).

PERIOD OF RECORD.--December 1927 to December 1944 (monthend contents only, published in WSP 1311), May 1950 to September 1965 (month-end contents only), October 1965 to current year. Prior to January 1972 published as Eagle Nest Reservoir.

REVISED RECORDS.--WSP 1281: Drainage area.

GAGE.--Nonrecording gage usually read several times a month at random intervals. Datum of gage is 8,056.8 ft (2,455.71 m) National Geodetic Vertical Datum of 1929. Prior to October 1964 gage heights were raised by addition of 8,000 ft (2,438.4 m) and called elevations.

REMARKS.--Lake is formed by concrete dam with spillway cut in natural rock, completed June 30, 1918; storage began in June 1917. Capacity, 79,120 acre-ft (97.6 hm³) between gage heights 35.0 ft (10.67 m), sill of outlet gate, and 137.0 ft (41.76 m), crest of ungated spillway. Dead storage negligible. Records given herein represent usable contents. Water released is used for irrigation. Lake is recreational area. Diversions for irrigation of about 2,500 acres (10 km²) above reservoir.

COOPERATION.--Supplemental gage readings furnished by employee of Springer Land and Cattle Co. and by Cimarron River watermaster.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 78,800 acre-ft (97.2 hm³) May 31, 1942, gage height, 136.9 ft (41.73 m); minimum observed, 635 acre-ft (783,000 m³) Dec. 14, 1954, gage height, 61.33 ft (18.693 m).

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 37,050 acre-ft (45.7 hm³) July 9, gage height, 115.75 ft (35.281 m); minimum observed, 7,070 acre-ft (8.72 km³) Nov. 21, gage height, 84.20 ft (25.664 m).

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	19640	---	---	---	---
2	8150	---	---	---	---	---	---	19580	---	36980	---	---
3	---	---	---	---	---	---	11370	---	---	---	---	36220
4	---	---	---	---	---	---	---	---	31880	---	---	---
5	---	---	---	---	---	8830	---	---	---	---	---	---
6	---	---	---	---	---	---	---	---	---	---	36070	---
7	---	7320	---	---	---	---	---	---	33080	---	---	---
8	---	---	---	---	---	---	---	---	---	---	---	---
9	8070	---	---	---	---	---	---	---	---	37050	---	---
10	---	---	---	---	---	---	---	---	---	---	---	36000
11	---	---	---	7880	---	---	---	---	34890	---	---	---
12	---	---	---	---	---	9060	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---	---	36000	---
14	---	7200	---	---	---	---	---	22100	---	---	---	---
15	---	---	7470	---	---	---	---	---	---	---	---	---
16	7680	7180	---	---	---	---	---	---	---	36830	---	---
17	---	---	---	---	---	---	14420	---	---	---	---	35770
18	7700	---	---	---	---	---	---	---	36150	---	---	---
19	---	---	---	---	---	9540	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---	---	36070	---
21	---	7070	---	---	---	---	---	---	---	---	36370	---
22	---	---	---	---	---	---	---	---	---	---	---	---
23	7320	---	---	---	---	---	---	---	---	36530	---	---
24	---	---	---	---	---	---	16670	---	---	---	---	35630
25	---	---	---	---	---	---	---	---	36680	---	---	---
26	---	---	---	---	---	10490	---	---	36950	---	---	---
27	---	7240	---	---	---	---	---	---	---	36250	36220	---
28	---	---	---	---	8600	---	---	28250	---	---	---	---
29	---	---	---	---	---	---	---	28610	---	---	---	---
30	7100	7300	---	8050	---	---	19000	---	36970	36220	---	35200
31	7100	---	7730	8050	---	11000	---	29700	---	36200	36220	---
MAX	---	---	---	---	---	---	---	---	---	---	---	---
MIN	---	---	---	---	---	---	---	---	---	---	---	---
(‡)	-1050	+200	+430	+320	+550	+2400	+8000	+10700	+7270	-770	+20	-1020

CAL YR 1978.................... ‡ -1670
WTR YR 1979.................... ‡ +27050

‡ Change in contents, in acre-feet.

NOTE.--Contents interpolated or estimated at end of each month on basis of inflow to and releases from Lake.

07206000 CIMARRON RIVER BELOW EAGLE NEST DAM, NM

LOCATION.--Lat 36°31'55", long 105°13'43", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left bank 300 ft (91 m) downstream from Eagle Nest Dam, 2.5 mi (4.0 km) southeast of Eagle Nest, 6.7 mi (10.8 km) west of Ute Park, and at mile 48.6 (78.2 km).

DRAINAGE AREA.--167 mi² (433 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1950 to current year. Published as Cimarron Creek below Eagle Nest Dam October 1952 to September 1965.

REVISED RECORDS.--WSP 1281: Drainage area.

GAGE.--Water-stage recorder. Parshall flume since May 15, 1951. Altitude of gage is 8,080 ft (2,463 m), from topographic map. Prior to May 15, 1951, at datum 0.81 ft (0.247 m) higher.

REMARKS.--Water-discharge records good except those for winter period, which are poor. Flow regulated by Eagle Nest Lake (station 07205500). Diversions for irrigation of about 2,500 acres (10 km²) above station.

AVERAGE DISCHARGE.--29 years, 13.6 ft³/s (0.385 m³/s), 9,850 acre-ft/yr (12.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 205 ft³/s (5.81 m³/s) June 14, 1955, gage height, 2.79 ft (0.850 m); no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 136 ft³/s (3.85 m³/s) May 9, gage height, 2.32 ft (0.707 m); minimum daily, 0.01 ft³/s (0.003 m³/s) Apr. 8-10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.0	4.0	.30	.02	.02	.02	.04	20	.11	24	9.4	2.4
2	2.0	5.7	.30	.02	.02	.02	.05	20	.11	24	9.4	2.4
3	1.4	5.7	.30	.02	.02	.02	.05	20	.12	24	9.4	2.4
4	6.3	5.4	.30	.02	.02	.02	.02	7.3	.11	24	9.4	2.6
5	5.0	5.4	.30	.02	.02	.02	.02	.22	.11	25	9.4	2.6
6	5.0	5.3	.20	.02	.02	.02	.02	21	.17	25	9.4	2.6
7	9.1	5.3	.10	.02	.02	.02	.02	29	.17	25	9.4	2.6
8	11	18	.02	.02	.02	.02	.01	29	.18	25	9.3	6.7
9	11	26	.02	.02	.02	.02	.01	76	.18	25	9.4	17
10	11	25	.02	.02	.02	.02	.01	135	.18	25	9.4	17
11	11	25	.02	.02	.02	.02	.03	135	.18	25	9.4	17
12	20	25	.02	.02	.02	.02	.05	135	.18	27	9.4	17
13	31	26	.02	.02	.02	.02	.05	135	.18	27	9.4	17
14	32	8.5	.02	.02	.02	.02	2.2	135	.15	27	16	15
15	32	7.1	.02	.02	.02	.02	4.3	113	.16	36	14	14
16	32	15	.02	.02	.02	.02	4.3	48	.15	41	2.3	14
17	32	14	.02	.02	.02	.02	6.6	48	.15	36	1.7	14
18	33	14	.02	.02	.02	.02	7.5	48	.16	36	.34	14
19	32	14	.02	.02	.02	.02	7.3	48	.18	34	.32	14
20	33	15	.02	.02	.02	7.7	7.8	73	.25	28	.31	14
21	33	6.6	.02	.02	.02	21	7.8	.28	.25	28	.33	14
22	33	.47	.02	.02	.02	21	8.3	.20	.25	28	.33	14
23	32	.50	.02	.02	.02	21	8.5	.11	.25	28	.33	14
24	32	.52	.02	.02	.02	20	8.5	.11	14	38	.31	14
25	33	.51	.02	.02	.02	20	8.8	.11	22	45	1.1	15
26	33	.52	.02	.02	.02	20	9.0	.11	22	41	3.5	16
27	33	.44	.02	.02	.02	6.8	9.2	.11	24	34	.26	16
28	33	.40	.02	.02	.02	.05	9.4	.10	24	34	.25	16
29	25	.40	.02	.02	---	.05	16	.07	24	31	.25	16
30	.39	.40	.02	.02	---	.05	20	.07	24	29	.25	19
31	1.4	---	.02	.02	---	.05	---	.07	---	17	1.1	---
TOTAL	641.59	280.16	2.28	.62	.56	138.08	145.88	1276.86	157.93	916	165.08	362.3
MEAN	20.7	9.34	.074	.020	.020	4.45	4.86	41.2	5.26	29.5	5.33	12.1
MAX	33	26	.30	.02	.02	21	20	135	24	45	16	19
MIN	.39	.40	.02	.02	.02	.02	.01	.07	.11	17	.25	2.4
AC-FT	1270	556	4.5	1.2	1.1	274	289	2530	313	1820	327	719

CAL YR 1978 TOTAL 4550.83 MEAN 12.5 MAX 50 MIN .00 AC-FT 9030

WTR YR 1979 TOTAL 4087.34 MEAN 11.2 MAX 135 MIN .01 AC-FT 8110

NOTE.--No gage-height record Dec. 5 to Mar. 20.

07206000 CIMARRON RIVER BELOW EAGLE NEST DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
OCT 18...	1600	32	380	7.2	9.0	160	--	47	11	15	.5	2.7
NOV 16...	1155	16	401	8.2	3.0	160	0	46	10	17	.6	2.7
DEC 15...	1625	.02	396	7.6	2.5	160	3	47	11	18	.6	2.6
JAN 11...	1125	.02	389	8.0	2.0	180	9	52	12	18	.6	2.5
FEB 08...	1030	.02	435	7.3	3.0	--	--	--	--	--	--	--
MAY 02...	1530	20	277	7.8	11.0	130	18	38	8.0	13	.5	2.6
JUN 26...	1500	19	249	7.6	13.0	110	0	33	6.7	8.5	.4	2.1
JUL 27...	1300	35	260	7.7	15.0	110	0	32	6.5	8.0	.3	2.1
AUG 21...	1430	.33	293	7.3	18.0	120	0	36	7.0	9.1	.4	8.5
SEP 17...	1530	14	274	7.2	14.0	120	9	36	7.0	8.9	.4	2.2

DATE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT 18...	160	22	5.6	.5	14	--	214	.08	--	--	--
NOV 16...	160	27	6.3	.4	15	--	220	.60	--	--	--
DEC 15...	160	27	6.9	.4	17	--	233	1.6	--	--	--
JAN 11...	170	28	6.3	.4	17	--	244	1.2	--	--	--
FEB 08...	--	--	--	--	--	--	--	--	--	--	--
MAY 02...	110	20	4.7	.4	12	172	166	.22	.03	20	40
JUN 26...	110	18	3.8	.3	15	--	155	.28	--	--	--
JUL 27...	110	18	4.4	.4	15	--	154	.34	--	--	--
AUG 21...	120	18	3.9	.4	16	--	179	1.8	--	--	--
SEP 17...	110	15	3.8	.3	14	150	157	.89	.17	40	<10

07207000 CIMARRON RIVER NEAR CIMARRON, NM

LOCATION.--Lat 36°31'11", long 104°58'42", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank 1,200 ft (370 m) downstream from Turkey Creek Canyon, 3.6 mi (5.8 km) west of Cimarron, and at mile 31.6 (50.8 km).

DRAINAGE AREA.--294 mi² (761 km²).

PERIOD OF RECORD.--May 1950 to current year. Published as Cimarron Creek near Cimarron, October 1952 to September 1965.

REVISED RECORDS.--WSP 1281: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Nov. 6, 1963. Datum of gage is 6,599.58 ft (2,011.552 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Eagle Nest Lake (station 07205500). Diversions above station for irrigation of about 3,500 acres (14 km²), part of which is below station. Philmont ditch (formerly known as Cimarroncito ditch) diverts from left bank 1.5 mi (2.3 km) above station, flumes under river 0.9 mi (1.4 km) above and bypasses station for off-channel storage and irrigation below; see tabulation below for monthly diversions. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--29 years, 20.6 ft³/s (0.583 m³/s), 14,920 acre-ft/yr (18.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft³/s (439 m³/s) June 17, 1965, gage height, 12.42 ft (3.786 m), from floodmark, from rating curve extended above 800 ft³/s (23 m³/s) on basis of slope-area measurements at gage heights 4.88 ft (1.487 m) and 12.42 ft (3.786 m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 584 ft³/s (16.5 m³/s) June 1, gage height, 3.69 ft (1.125 m); minimum, 1.5 ft³/s (0.042 m³/s) Jan. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	9.8	9.6	4.0	3.5	4.6	9.5	48	180	53	20	9.9
2	3.2	11	8.7	3.0	4.0	4.5	8.9	47	198	52	18	10
3	3.1	21	7.3	4.0	4.0	4.5	9.5	49	188	51	15	11
4	2.6	65	6.0	5.0	3.5	4.3	8.5	45	164	50	14	10
5	4.1	40	7.0	5.5	3.5	4.6	8.7	33	157	49	13	9.1
6	4.8	29	4.5	6.0	4.0	4.7	8.4	36	140	46	13	8.5
7	5.0	24	3.0	6.0	4.0	4.8	8.5	52	126	43	12	8.6
8	7.5	22	2.0	5.5	4.5	4.7	9.1	55	146	41	12	8.4
9	8.7	33	2.5	6.0	4.5	4.9	11	64	191	40	12	13
10	9.1	32	3.0	6.0	4.5	4.5	13	138	171	39	14	17
11	9.5	32	3.5	6.5	4.6	5.0	13	147	145	35	15	17
12	10	32	4.0	6.5	4.8	5.4	13	148	123	34	17	18
13	20	32	5.0	5.0	4.4	5.4	12	147	109	32	18	18
14	26	29	5.0	3.5	4.5	5.4	12	146	96	32	25	21
15	27	16	5.5	5.0	3.9	5.5	14	146	87	37	85	19
16	28	19	5.5	5.8	3.7	5.5	17	85	79	47	31	18
17	29	21	5.5	5.3	3.9	5.8	22	74	68	45	22	18
18	30	21	6.0	4.9	4.5	5.9	31	75	61	43	20	17
19	31	21	6.0	4.5	6.0	6.2	35	77	55	42	18	17
20	32	21	5.5	5.0	4.2	6.5	37	131	51	36	17	17
21	33	21	5.0	5.0	3.9	15	38	206	48	35	16	20
22	34	14	6.0	4.5	4.4	20	39	156	45	35	16	19
23	33	11	6.0	4.0	4.0	21	44	187	41	34	18	18
24	33	10	6.0	4.5	4.4	21	48	184	47	34	15	17
25	35	11	6.0	5.0	4.0	21	48	188	62	44	14	17
26	35	11	6.0	5.0	4.7	22	49	187	58	43	16	18
27	34	9.8	6.0	4.5	4.7	22	47	171	58	37	15	18
28	34	10	7.0	4.5	4.8	13	46	148	58	39	12	18
29	34	10	6.5	4.0	---	11	46	133	59	37	11	18
30	20	10	5.5	3.5	---	10	50	122	56	33	11	18
31	11	---	5.0	3.5	---	10	---	115	---	32	10	---
TOTAL	629.2	648.6	170.1	151.0	119.4	288.7	756.1	3540	3067	1250	565	466.5
MEAN	20.3	21.6	5.49	4.87	4.26	9.31	25.2	114	102	40.3	18.2	15.6
MAX	35	65	9.6	6.5	6.0	22	50	206	198	53	85	21
MIN	2.6	9.8	2.0	3.0	3.5	4.3	8.4	33	41	32	10	8.4
AC-FT	1250	1290	337	300	237	573	1500	7020	6080	2480	1120	925
(†)	0	0	0	0	0	0	0	0	0	198	132	0

CAL YR 1978 TOTAL 6515.93 MEAN 17.9 MAX 65 MIN .53 AC-FT 12920 † 539
WTR YR 1979 TOTAL 11651.60 MEAN 31.9 MAX 206 MIN 2.0 AC-FT 23110 † 330

† Diversion, in acre-feet, by Philmont ditch; data furnished by Cimarron River Watermaster.

07207000 CIMARRON RIVER NEAR CIMARRON, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--September 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
SEP											
18...	0930	18	290	8.4	11.0	140	10	43	7.8	11	.4

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
SEP										
18...	1.8	130	28	4.6	.3	12	187	.04	<10	3

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
SEP							
18...	0930	3	70	<1	10	0	<10

07207000 CIMARRON RIVER NEAR CIMARRON, NM - Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
SEP						
18...	0	3	.0	0	0	9

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)
SEP					
18...	0930	<3.5	5.1	5.2	.76

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)
SEP										
18...	0930	.0	.00	.0	.00	.00	.00	.00	.00	.00

DATE	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	TOX-APHENE, TOTAL (UG/L) (39400)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	MIREX, TOTAL (UG/L) (39755)
SEP									
18...	.00	.00	.00	.00	0	.00	.00	.00	.00

07207500 PONIL CREEK NEAR CIMARRON, NM

LOCATION.--Lat 36°34'25", long 104°56'46", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left bank 1.6 mi (2.6 km) downstream from confluence of North and South Ponil Creeks, and 4.7 mi (7.6 km) northwest of Cimarron.

DRAINAGE AREA.--171 mi^2 (443 km^2).

PERIOD OF RECORD.--November 1915 to June 1919, August 1919 to July 1925, September 1925, September 1927 to July 1929, May 1950 to current year. Prior to May 1950 monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 1281: Drainage area. WSP 1731: 1920.

GAGE.--Water-stage recorder. Altitude of gage is 6,630 ft (2,021 m), from topographic map. Prior to May 8, 1922, at site 0.1 mi (0.2 km) downstream at different datum. May 8, 1922 to Aug. 8, 1929, at site 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Records good except those for winter period and those for July through September, which are poor. Diversions for irrigation of about 250 acres (1.0 km^2) above station. Diversions 1,000 ft (300 m) below station for irrigation of about 300 acres (1.2 km^2). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years (water years 1916-25, 1928, 1951-79), 11.2 ft^3/s (0.317 m^3/s), 8,110 acre-ft/yr (10.0 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,630 ft^3/s (159 m^3/s) June 17, 1965, gage height, 11.13 ft (3.392 m), from rating curve extended above 230 ft^3/s (6.5 m^3/s) on basis of slope-area measurements at gage heights 3.56 ft (1.085 m), 5.80 ft (1.768 m), 7.15 ft (2.179 m), and 11.13 ft (3.392 m); no flow many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Discharge for flood of Aug. 8, 1929, which destroyed gage, was estimated as 5,200 ft^3/s (150 m^3/s) by State Engineer.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft^3/s (5.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 25	2045	624	17.7	4.34	1.323
June 2	0130	729	20.6	4.64	1.414
June 9	0130	250	7.08	3.18	.969
Aug. 10	1830	404	11.4	3.71	1.131
Aug. 15	1115	638	18.1	4.38	1.335
Aug. 26	1900	a*1,110	31.4	5.56	1.695

a From rating curve extended as explained above.

Minimum discharge, 0.02 ft^3/s (0.001 m^3/s) Oct. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.03	.35	2.8	1.5	1.5	3.3	12	52	188	22	10	10
2	.02	.39	3.1	1.5	2.0	3.6	11	51	453	21	7.0	9.5
3	.02	1.6	2.5	2.0	2.0	3.6	12	52	381	19	6.0	9.0
4	.04	11	2.3	2.0	2.0	3.4	10	51	290	18	5.0	8.5
5	.04	19	2.8	2.0	2.0	3.4	10	47	231	17	5.0	8.0
6	.05	14	2.0	2.0	2.0	3.7	10	46	175	18	5.0	7.5
7	.07	9.6	1.5	2.0	2.0	3.8	12	49	132	17	5.0	7.5
8	.06	7.4	1.0	2.0	2.0	3.9	17	53	140	14	5.0	7.0
9	.05	6.2	1.0	2.5	2.0	4.4	27	57	226	12	5.0	7.0
10	.05	5.4	1.5	2.5	2.1	4.9	29	54	188	11	20	6.5
11	.05	5.3	2.0	3.0	2.2	5.5	26	49	154	11	17	6.5
12	.05	5.6	3.0	3.0	2.3	6.2	23	43	144	10	16	6.0
13	.05	5.6	3.5	2.5	2.4	6.8	20	38	118	10	14	7.0
14	.09	4.6	3.5	2.0	2.4	7.7	20	34	97	9.5	38	9.0
15	.10	3.7	3.5	2.0	2.2	8.9	22	32	82	11	209	8.5
16	.10	3.0	3.5	2.5	2.2	8.8	33	33	72	13	102	8.0
17	.10	3.0	3.5	3.0	2.2	9.8	47	35	64	21	68	7.5
18	.09	3.0	4.0	3.0	2.5	9.3	69	40	56	17	51	6.5
19	.07	3.0	3.5	3.0	3.0	9.4	83	43	50	14	34	6.0
20	.07	3.0	3.5	3.0	3.6	9.3	77	70	44	12	28	6.0
21	.19	3.2	3.0	2.5	3.0	9.0	68	119	39	11	23	7.4
22	.26	3.7	3.0	2.5	3.4	7.8	66	203	34	10	20	7.5
23	.14	3.0	3.0	2.5	3.2	8.0	73	215	32	8.5	20	6.0
24	.13	2.9	3.0	2.5	3.4	7.5	80	235	46	7.5	18	5.0
25	.18	3.7	3.0	2.5	3.4	7.7	80	386	61	6.5	16	4.5
26	.43	3.3	3.0	2.0	3.4	8.2	75	360	38	6.6	109	4.5
27	.43	3.3	3.0	2.0	4.0	8.8	66	305	34	7.4	50	4.0
28	.35	2.5	3.5	2.0	3.6	10	61	236	31	10	20	4.0
29	.35	2.6	3.0	1.5	---	12	58	183	28	12	15	4.0
30	.34	2.8	2.5	1.5	---	12	55	146	24	7.5	12	4.0
31	.34	---	2.0	1.5	---	14	---	129	---	8.0	11	---
TOTAL	4.34	145.74	86.0	70.0	72.0	224.7	1252	3446	3652	392.5	964.0	202.4
MEAN	.14	4.86	2.77	2.26	2.57	7.25	41.7	111	122	12.7	31.1	6.75
MAX	.43	19	4.0	3.0	4.0	14	83	386	453	22	209	10
MIN	.02	.35	1.0	1.5	1.5	3.3	10	32	24	6.5	5.0	4.0
AC-FT	8.6	289	171	139	143	446	2480	6840	7240	779	1910	401

CAL YR 1978 TOTAL 1530.27 MEAN 4.19 MAX 61 MIN .00 AC-FT 3040
WTR YR 1979 TOTAL 10511.68 MEAN 28.8 MAX 453 MIN .02 AC-FT 20850

07206500 RAYADO CREEK AT SAUBLE RANCH, NEAR CIMARRON, NM

LOCATION.--Lat 36°22'20", long 104°58'10", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on right bank at Sauble Ranch (Carson-Maxwell Base Camp of Philmont Scout Ranch), 2.5 mi (4.0 km) upstream from State Highway 21, 4.0 mi (6.4 km) downstream from Bonito Creek, and 9.8 mi (15.8 km) southwest of Cimarron.

DRAINAGE AREA.--65 mi² (168 km²).

PERIOD OF RECORD.--January 1909 to February 1910, June to August 1910, May 1911 to May 1913, July 1913 to February 1915, October 1915 to September 1918, March 1919 to September 1920, June 1923 to September 1924, March to May 1927, August 1927 to current year. Monthly discharge only for some periods, published in WSP 1311. Records for April and May 1910, published in WSP 287, are unreliable and should not be used. Published as Rayado River "at," "near," or "above" Abreu's Ranch near Cimarron prior to October 1925 and as Rayado River at Sauble Ranch, near Cimarron, October 1925 to September 1952.

REVISED RECORDS.--WSP 1281: 1916, 1934-35(M), 1937(M), 1941(P), 1942(M), 1944(M), drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1976. Altitude of gage is 6,720 ft (2,048 m), from topographic map. See WSP 1921 for history of changes prior to Oct. 1, 1954. Oct. 1, 1954 to June 16, 1965, at site 270 ft (82 m) downstream at datum 2.79 ft (0.850 m) lower.

REMARKS.--Records good except those for winter period, which are poor. No diversion above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--60 years (water years 1912, 1914, 1916-20, 1924, 1928-79), 13.8 ft³/s (0.391 m³/s), 10,000 acre-ft/yr (12.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (1909-12, and SINCE 1913).--Maximum discharge, 9,000 ft³/s (255 m³/s) June 17, 1965, gage height, 11.5 ft (3.51 m), from floodmarks, from rating curve extended above 70 ft³/s (2.0 m³/s) on basis of field estimate of peak flow; minimum, 0.03 ft³/s (0.001 m³/s) Dec. 3, 1950, but may have been less during periods of ice effect.

EXTREMES OUTSIDE PERIOD OF RECORD.--The major flood of June 10, 1913, destroyed the gage (stage and discharge not determined). Another major flood probably occurred Sept. 29 or 30, 1904.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 4	0200	146	4.13	3.60	1.097	June 8	2315	193	5.47	3.75	1.143
May 21	2045	*221	6.26	3.83	1.167	Aug. 15	1100	102	2.89	3.44	1.049
June 3	0430	176	4.98	3.70	1.128						

Minimum discharge, 0.45 ft³/s (0.013 m³/s) Feb. 25, Mar. 5, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.9	3.0	6.1	3.0	3.0	3.4	8.4	58	102	20	7.7	9.8
2	2.8	2.9	6.6	3.0	4.1	3.5	7.9	57	147	19	7.5	9.5
3	2.7	9.9	3.5	3.5	3.8	3.5	8.6	60	149	18	7.4	9.2
4	2.7	74	4.1	4.0	3.5	3.4	7.7	57	132	18	6.9	8.8
5	2.9	32	6.6	3.9	3.0	3.1	7.9	52	133	17	6.5	8.4
6	2.9	22	4.8	3.7	3.5	3.6	8.8	51	112	17	6.3	8.2
7	2.9	19	4.0	3.6	3.5	4.0	11	56	94	16	6.0	7.9
8	2.8	15	3.0	3.5	3.5	4.8	13	60	108	15	6.0	7.9
9	2.8	13	3.0	3.8	3.5	5.3	18	64	133	14	9.0	7.6
10	2.7	12	3.0	3.6	3.5	5.2	18	59	103	13	11	7.0
11	2.7	12	3.5	3.7	2.9	4.6	15	51	92	13	13	6.8
12	2.7	12	3.5	3.6	2.7	5.6	15	44	82	12	8.9	6.7
13	2.7	11	4.0	3.5	2.7	6.1	14	39	73	12	7.8	6.5
14	2.9	10	4.2	3.4	2.8	6.6	16	36	64	12	12	8.3
15	2.8	9.3	4.2	3.3	3.1	7.1	19	34	57	12	52	8.5
16	2.8	8.3	4.5	3.2	3.1	7.2	25	34	51	13	36	7.4
17	2.7	7.1	4.7	3.0	3.3	7.6	33	36	46	14	29	6.7
18	2.7	7.9	5.9	3.0	3.1	7.0	56	37	42	13	32	6.4
19	2.9	6.0	6.1	3.1	3.5	6.9	76	40	38	12	26	6.2
20	2.8	7.2	3.9	3.0	3.6	7.0	69	73	35	11	23	6.1
21	3.3	7.3	3.6	3.0	3.6	7.0	65	153	32	10	21	7.7
22	4.0	7.3	5.0	3.0	3.4	6.8	62	167	30	10	19	7.1
23	4.1	6.0	4.6	2.8	3.6	6.8	78	154	29	9.4	18	6.2
24	3.6	6.5	4.6	3.0	3.7	6.4	87	152	29	9.0	17	5.8
25	4.4	6.0	4.6	3.5	3.6	6.9	85	186	32	8.8	16	5.5
26	4.6	6.7	4.2	3.4	3.6	7.5	87	179	28	9.2	15	5.3
27	4.0	6.2	4.1	3.3	3.5	8.3	79	184	25	10	16	5.2
28	4.4	5.0	4.1	3.3	3.4	9.1	78	134	23	9.3	13	5.1
29	4.0	6.1	4.1	3.0	---	9.7	71	115	23	9.3	12	4.9
30	3.9	5.6	4.1	2.5	---	8.9	64	100	22	8.1	11	4.9
31	3.9	---	3.9	2.3	---	9.6	---	97	---	8.3	11	---
TOTAL	101.7	358.7	133.9	101.6	93.5	192.2	1203.3	2587	2065	392.4	483.0	211.6
MEAN	3.28	12.0	4.32	3.27	3.34	6.20	40.1	83.5	68.8	12.7	15.6	7.05
MAX	4.6	74	6.6	4.0	4.1	9.7	87	186	149	20	52	9.8
MIN	2.7	3.0	3.0	2.3	2.7	3.1	7.7	34	22	8.1	6.0	4.9
AC-FT	202	711	266	201	185	381	2390	5130	4100	778	958	420

CAL YR 1978 TOTAL 3541.6 MEAN 9.70 MAX 93 MIN 1.7 AC-FT 7020
WTR YR 1979 TOTAL 7922.8 MEAN 21.7 MAX 186 MIN 2.3 AC-FT 15710

07211000 CIMARRON RIVER AT SPRINGER, NM

LOCATION.--Lat 36°21'37", long 104°35'53", Colfax County, Hydrologic Unit 11080002, in Maxwell Grant, on left bank at Springer, 400 ft (120 m) downstream from bridge on State Highway 199, 0.3 mi (0.5 km) upstream from Salado Creek, and at mile 8.2 (13.2 km).

DRAINAGE AREA.--1,032 mi² (2,673 km²).

PERIOD OF RECORD.--August 1907 to December 1909, January 1921 to February 1922, October 1924 to January 1926, September 1926 to current year. Monthly discharge only for some periods, published in WSP 1311. Published as Cimarron Creek at Springer, October 1952 to September 1965.

REVISED RECORDS.--WSP 827: 1934-36(M). WSP 1281: 1942, 1945-46(M).

GAGE.--Water-stage recorder. Concrete control since Nov. 5, 1954. Altitude of gage is 5,770 ft (1,759 m), from topographic map. See WSP 1311 or 1731 for history of changes prior to July 17, 1942.

REMARKS.--Records fair except those for winter period, which are poor. Flow partly regulated by Eagle Nest Lake (station 07205500). Diversions for irrigation of about 23,000 acres (93 km²) above station and a few hundred acres between station and mouth. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--55 years (water years 1921, 1925, 1927-79), 16.9 ft³/s (0.479 m³/s), 12,240 acre-ft/yr (15.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1930).--Maximum discharge, 29,500 ft³/s (835 m³/s) June 18, 1965, gage height, 19.96 ft (6.084 m), from floodmarks, from rating curve extended above 1,800 ft³/s (51 m³/s) on basis of contracted-opening measurement of peak flow; no flow at times in 1954, 1956-57, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 22 ft (6.7 m) Sept. 29, 1904 (backwater from debris on railroad bridge). Another major flood occurred June 11, 1913. Maximum discharge of these floods probably exceeded 10,000 ft³/s (280 m³/s), but probably were less than the 1965 flood.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 280 ft³/s (7.9 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 20	1845	a*4090	116	8.35	2.545
May 25	2215	1100	31.2	5.82	1.774
June 2	1230	1460	41.3	6.19	1.887
June 7	2045	1980	56.1	6.59	2.009
July 26	0545	368	10.4	4.76	1.451
Aug. 27	1045	550	15.6	5.05	1.539

a From rating curve extended above 1,800 ft³/s (51 m³/s) as explained above.

No flow Oct. 1, 2, 6-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.08	1.4	1.0	2.5	1.7	1.7	12	435	48	7.4	33
2	.00	.08	1.4	.70	3.0	1.7	1.8	11	936	33	11	29
3	.01	1.6	1.4	.80	3.0	1.7	2.4	3.3	740	21	6.0	12
4	.03	26	1.3	1.0	2.5	1.5	2.6	1.9	656	17	4.1	6.6
5	.01	12	1.5	2.0	2.0	1.7	2.6	1.7	604	15	3.0	6.3
6	.00	2.9	1.5	2.5	2.5	1.7	2.3	1.3	530	14	2.1	4.7
7	.00	1.8	1.5	2.6	2.5	1.7	2.1	.94	721	15	1.5	7.4
8	.00	1.5	1.0	2.5	3.0	1.7	1.8	.64	450	8.4	1.1	6.5
9	.00	1.3	.50	2.6	3.0	1.8	2.1	.62	467	8.0	.94	6.6
10	.00	1.1	1.1	2.8	3.0	1.7	2.3	1.1	423	6.9	.90	5.3
11	.00	1.2	1.3	2.8	3.0	1.8	2.3	1.5	390	5.1	.81	4.5
12	.00	1.7	1.5	2.9	3.0	2.0	2.1	1.1	325	3.7	1.6	4.0
13	.00	1.6	1.7	2.3	3.0	2.0	2.0	1.3	304	3.5	3.0	3.5
14	.00	1.6	1.7	2.0	3.0	2.0	1.6	1.6	268	5.5	10	5.2
15	.01	1.8	1.6	2.5	2.5	2.0	1.4	1.5	242	11	7.8	5.9
16	.03	1.7	1.6	2.8	2.0	2.0	1.3	1.3	226	17	15	4.4
17	.03	1.5	1.7	2.7	1.5	2.0	2.3	1.5	199	7.0	13	3.6
18	.02	1.4	1.8	2.5	1.6	1.9	2.4	1.9	153	14	14	3.3
19	.04	1.4	1.9	2.5	1.7	2.1	1.5	2.7	51	16	6.7	3.0
20	.04	1.3	1.5	3.0	1.7	2.6	1.1	657	35	6.1	6.3	2.5
21	.44	1.3	1.5	2.9	1.7	2.8	1.1	168	31	5.6	5.5	2.6
22	.17	1.4	1.8	2.5	2.0	2.1	1.1	120	31	7.4	4.3	2.8
23	.15	1.1	1.9	2.4	1.9	2.4	1.1	379	32	7.7	4.0	2.5
24	.14	1.2	2.0	2.6	1.8	2.2	1.2	466	95	5.2	3.5	2.2
25	.15	1.9	2.1	2.8	1.7	2.1	.97	659	115	5.9	2.9	1.9
26	.30	1.8	2.1	2.7	1.7	2.0	.98	961	86	118	6.4	1.6
27	.32	1.7	2.1	2.6	1.7	2.0	.90	813	59	21	245	1.6
28	.32	1.6	2.5	2.5	1.7	2.0	3.3	629	56	9.2	83	1.7
29	.26	1.4	2.4	2.4	---	2.1	20	496	53	6.6	52	1.6
30	.32	1.4	2.0	2.2	---	1.8	19	391	51	6.1	42	1.5
31	.28	---	1.5	2.0	---	1.8	---	369	---	6.2	37	---
TOTAL	3.07	78.36	50.80	72.10	64.2	60.6	89.35	6156.90	8764	474.1	601.85	177.3
MEAN	.099	2.61	1.64	2.33	2.29	1.95	2.98	199	292	15.3	19.4	5.91
MAX	.44	26	2.5	3.0	3.0	2.8	20	961	936	118	245	33
MIN	.00	.08	.50	.70	1.5	1.5	.90	.62	31	3.5	.81	1.5
AC-FT	6.1	155	101	143	127	120	177	12210	17380	940	1190	352

CAL YR 1978 TOTAL 760.69 MEAN 2.08 MAX 41 MIN .00 AC-FT 1510
WTR YR 1979 TOTAL 16592.63 MEAN 45.5 MAX 961 MIN .00 AC-FT 32910

07211500 CANADIAN RIVER NEAR TAYLOR SPRINGS, NM

LOCATION.--Lat 36°17'49", long 104°29'36", in NW¼SE¼ sec. 21, T.24 N., R.23 E., Colfax County, Hydrologic Unit 11080003, on left bank at head of gorge, 2.0 mi (3.2 km) south of Taylor Springs, 2.3 mi (3.7 km) downstream from Cimarron River, 2.4 mi (3.9 km) upstream from Chico Creek, 7.1 mi (11.4 km) southeast of Springer, and at mile 847.9 (1,364.3 km).

DRAINAGE AREA.--2,850 mi² (7,380 km²).

PERIOD OF RECORD.--January 1940 to September 1958, annual maximum, water years 1959-63, June 1964 to current year. Water-year estimate for 1940, published in WSP 1311.

REVISED RECORDS.--WSP 1177: Drainage area. WSP 1281: 1941-42(P), 1945-47(M), 1948-50(P).

GAGE.--Water-stage recorder. Altitude of gage is 5,635 ft (1,718 m), from topographic map. Prior to June 10, 1964, water-stage recorder at site 1.7 mi (2.7 km) downstream at different datum; operated as crest-stage gage at that site and datum during water years 1959-64.

REMARKS.--Records poor. Diversions for irrigation of about 30,000 acres (120 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years (water years 1940-58, 1965-79), 82.3 ft³/s (2.331 m³/s), 59,630 acre-ft/yr (73.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 162,000 ft³/s (4,590 m³/s) June 18, 1965, gage height, 47.4 ft (14.448 m), from floodmarks, from rating curve extended above 7,000 ft³/s (200 m³/s) on basis of slope-area measurement of peak flow; no flow at times some years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood prior to 1965 occurred Sept. 29, 1904, discharge published as 91,100 ft³/s (2,580 m³/s) in WSP 842,847.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 20	1800	a*23800	674	13.11	3.996
June 7	2145	9930	281	8.42	2.566
June 24	0500	3850	109	5.62	1.713
July 25	0315	5810	165	6.62	2.018

a From rating curve extended as explained above.

Minimum discharge, 0.04 ft³/s (0.001 m³/s) Dec. 30, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.62	.76	3.3	2.0	2.0	5.9	2.9	22	604	57	38	39
2	.49	.79	3.3	1.8	2.5	5.1	3.1	18	1250	47	59	34
3	.44	1.7	2.7	1.8	2.6	4.6	4.9	12	1220	32	33	25
4	.43	308	3.3	2.8	2.8	4.4	6.3	9.4	1060	25	21	12
5	.41	142	3.3	3.5	3.0	4.5	5.8	6.2	796	46	16	11
6	.42	23	2.6	4.0	3.4	4.4	5.4	4.3	668	26	13	21
7	.43	13	3.3	4.9	3.4	4.5	4.9	2.8	1930	22	10	16
8	.43	6.7	3.7	4.6	3.5	4.5	3.9	2.2	1410	18	8.2	32
9	.48	4.8	4.7	4.5	3.3	4.4	4.2	1.9	1180	13	10	16
10	.46	3.6	5.2	4.9	4.5	6.1	6.1	2.5	813	12	7.9	12
11	.49	3.1	4.7	5.1	4.9	8.5	5.6	3.8	589	9.8	6.9	8.2
12	.48	4.0	4.9	6.1	5.2	8.3	5.0	3.6	448	7.7	6.5	7.2
13	.49	4.2	5.4	4.8	5.9	7.0	4.7	2.8	374	6.2	6.6	5.9
14	.52	3.5	5.7	6.6	8.0	5.7	3.8	2.7	315	6.2	55	10
15	.49	3.8	5.9	6.8	14	5.3	3.3	2.8	282	12	67	18
16	.50	3.8	5.7	7.3	16	4.8	3.0	2.8	261	24	93	22
17	.51	3.3	5.7	6.1	14	4.5	2.9	2.5	227	16	85	13
18	.51	3.0	6.2	6.0	12	4.5	5.8	2.8	189	44	218	10
19	.52	2.9	8.0	6.0	10	4.2	4.9	3.4	73	76	54	8.8
20	.54	2.8	5.0	6.0	9.0	4.6	3.5	3440	53	24	33	7.2
21	.75	2.7	3.0	5.5	8.0	9.6	2.8	884	41	15	23	6.4
22	1.5	3.0	3.0	5.0	7.3	9.2	2.4	190	40	80	18	6.4
23	1.1	2.8	3.0	4.0	5.4	6.2	2.2	477	40	26	14	6.0
24	.82	2.6	3.0	3.0	5.7	6.5	2.0	630	752	14	16	5.6
25	.76	4.3	3.0	3.2	5.9	5.9	1.9	778	159	1390	10	4.8
26	.76	4.3	2.5	2.5	6.2	4.8	2.3	1180	117	371	92	4.4
27	.80	4.0	3.0	2.3	6.2	4.2	2.2	1010	81	140	351	4.0
28	.81	3.7	3.5	2.1	5.9	3.9	2.0	764	71	63	126	4.2
29	.78	3.6	3.0	2.0	---	3.6	13	605	65	37	69	4.2
30	.78	3.5	2.8	1.9	---	3.2	25	500	61	28	51	4.0
31	.78	---	2.4	1.8	---	3.1	---	770	---	25	44	---
TOTAL	19.30	573.25	124.8	128.9	180.6	166.0	145.8	11336.5	15169	2712.9	1655.1	378.3
MEAN	.62	19.1	4.03	4.16	6.45	5.35	4.86	366	506	87.5	53.4	12.6
MAX	1.5	308	8.0	7.3	16	9.6	25	3440	1930	1390	351	39
MIN	.41	.76	2.4	1.8	2.0	3.1	1.9	1.9	40	6.2	6.5	4.0
AC-FT	38	1140	248	256	358	329	289	22490	30090	5380	3280	750

CAL YR 1978 TOTAL 6682.18 MEAN 18.3 MAX 807 MIN .13 AC-FT 13250
WTR YR 1979 TOTAL 32590.45 MEAN 89.3 MAX 3440 MIN .41 AC-FT 64640

07215500 MORA RIVER AT LA CUEVA, NM

LOCATION.--Lat 35°56'27", long 105°14'59", Mora County, Hydrologic Unit 11080004, in Mora Grant, on left bank 45 ft (14 m) upstream from bridge on State Highway 3 at La Cueva, 0.3 mi (0.5 km) downstream from La Cueva damsite, and at mile 86.8 (139.7 km).

DRAINAGE AREA.--173 mi² (448 km²).

PERIOD OF RECORD.--August 1903 to April 1905 (gage heights and discharge measurements only), May to December 1905, May 1906 to July 1911, April 1931 to current year. Monthly discharge only for some periods, published in WSP 1311. Records for February to April 1905, published in WSP 173, are unreliable and should not be used.

REVISED RECORDS.--WSP 857: 1937. WSP 1281: 1931(M), 1932. WSP 1511: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 7,000 ft (2,134 m), from topographic map. Prior to Apr. 15, 1931, nonrecording gage, and Apr. 15, 1931 to Apr. 18, 1962, water-stage recorder near present site at different datums. Apr. 19, 1962 to Mar. 13, 1974, water-stage recorder at site 700 ft (210 m) downstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions above station for irrigation of about 7,000 acres (28 km²), part of which is below station. See tabulation below for monthly and yearly diversion of La Cueva Canal, which bypasses gage on left bank. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--52 years (water years 1907-10, 1932-79), 27.2 ft³/s (0.770 m³/s), 19,710 acre-ft/yr (24.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1930).--Maximum discharge, 1,530 ft³/s (43.3 m³/s) Sept. 23, 1941 gage height, 7.58 ft (2.310 m), site and datum then in use, from rating curve extended above 400 ft³/s (11 m³/s); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1904, may have exceeded 20,000 ft³/s (570 m³/s); another major flood occurred June 11, 1913, but is believed less than that of 1904.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	0630	450	12.7	4.30	1.311	June 24	1815	a*1020	28.9	6.56	1.999
June 9	0230	555	15.7	4.72	1.439						

a From rating curve extended above 340 ft³/s (9.6 m³/s).

Minimum discharge, 0.27 ft³/s (0.008 m³/s) Dec. 3, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.77	1.7	.81	.70	2.0	11	8.2	69	340	112	34	33
2	.58	1.3	.77	.60	3.0	11	7.0	59	366	116	31	32
3	.52	29	.60	2.0	4.0	11	3.5	66	328	115	27	30
4	.43	28	.47	3.2	6.0	10	1.9	68	309	106	18	29
5	.89	2.5	.62	2.4	7.0	9.4	2.5	57	337	96	17	28
6	1.0	2.2	.60	.90	5.2	5.0	2.4	55	327	90	16	28
7	1.3	2.1	.55	.83	4.4	2.5	2.6	60	318	84	11	28
8	1.0	2.3	.50	.75	3.2	2.3	1.8	77	401	68	9.8	28
9	.48	2.3	1.0	.75	1.5	2.2	3.5	85	453	62	11	27
10	.51	2.3	3.0	.80	1.3	2.3	11	83	346	54	19	25
11	.47	3.2	5.2	.83	1.5	2.3	13	69	296	51	26	21
12	.55	15	5.2	.87	7.9	2.3	11	59	271	56	25	24
13	.59	13	4.4	.83	11	2.4	12	42	255	59	19	26
14	.56	7.8	4.9	.75	15	2.3	12	35	241	51	29	28
15	.63	8.5	2.8	.83	13	6.3	13	42	232	49	119	28
16	.73	9.8	1.1	.99	13	9.0	15	49	227	51	139	27
17	.69	9.3	1.0	1.0	12	9.0	19	53	215	71	116	27
18	.81	5.2	7.5	1.5	12	8.5	26	59	194	46	101	27
19	.70	1.9	2.4	1.1	12	8.4	45	78	166	43	85	25
20	.75	1.6	.92	1.0	11	9.2	52	105	139	39	76	21
21	.97	1.5	1.0	1.0	11	11	53	214	116	37	67	25
22	1.6	1.4	.92	.83	11	9.5	50	195	111	37	59	25
23	1.3	1.3	.75	.75	12	8.7	51	191	111	35	54	24
24	1.2	1.7	.83	.85	11	8.6	57	204	175	31	48	23
25	1.2	22	.83	.99	11	8.3	63	246	126	28	41	22
26	1.7	2.0	.83	.90	11	8.2	78	279	124	28	43	21
27	1.4	1.5	1.0	.80	11	8.2	82	406	122	32	53	21
28	1.0	1.2	.97	.70	11	8.5	83	361	128	33	42	21
29	.86	1.1	1.0	.70	---	9.2	80	355	129	37	38	19
30	.66	.94	1.0	.70	---	9.0	75	350	125	34	36	16
31	1.5	---	.83	1.0	---	8.6	---	326	---	34	35	---
TOTAL	27.35	183.64	54.30	31.85	235.0	224.2	934.4	4397	7028	1785	1444.8	759
MEAN	.88	6.12	1.75	1.03	8.39	7.23	31.1	142	234	57.6	46.6	25.3
MAX	1.7	29	7.5	3.2	15	11	83	406	453	116	139	33
MIN	.43	.94	.47	.60	1.3	2.2	1.8	35	111	28	9.8	16
AC-FT	54	364	108	63	466	445	1850	8720	13940	3540	2870	1510
(†)	568	715	761	770	337	196	365	453	70	170	410	148

CAL YR 1978 TOTAL 3710.36 MEAN 10.2 MAX 113 MIN .43 AC-FT 7360 † 5820
WTR YR 1979 TOTAL 17104.54 MEAN 46.9 MAX 453 MIN .43 AC-FT 33930 † 4960

† Diversion, in acre-feet, by La Cueva Canal.

07216500 MORA RIVER NEAR GOLONDRINAS, NM

LOCATION.--Lat 35°53'27", long 105°09'47", Mora County, Hydrologic Unit 11080004, in Mora Grant, on right bank 0.7 mi (1.1 km) upstream from bridge on State Highway 160, 1.2 mi (1.9 km) east of Golondrinas, 1.9 mi (3.1 km) upstream from Coyote Creek, 4.7 mi (7.6 km) downstream from Rito Cebolla, and at mile 75.8 (122.0 km).

DRAINAGE AREA.--267 mi² (692 km²).

PERIOD OF RECORD.--March 1915 to May 1921, October 1921 to March 1922, May, August, September 1922, July 1923 to July 1924, December 1924 to current year. Monthly discharge only 1915-30, published in WSP 1311.

REVISED RECORDS.--WSP 1281: 1951(M). WSP 1311: 1935(M), 1937-38(M), 1940-42(M), 1949(M). WSP 1511: Drainage area. WSP 1731: 1958(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,750 ft (2,057 m), from topographic map. Mar. 10, 1915 to June 4, 1921, water-stage recorder at site 2.8 mi (4.5 km) upstream at different datum. July 6, 1921 to Jan. 5, 1929, nonrecording gage or water-stage recorder at site 0.7 mi (1.1 km) downstream at datum about 14 ft (4.3 m) lower and Jan. 6, 1929 to Apr. 1, 1972, water-stage recorder at site 0.7 mi (1.1 km) downstream at datum about 15 ft (4.6 m) lower.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 12,000 acres (49 km²) above station. Off-channel lakes make it possible to divert and store water during non-irrigation season. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--62 years (water years 1916-20, 1922, 1924-79), 33.4 ft³/s (0.946 m³/s), 24,200 acre-ft/yr (29.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,000 ft³/s (396 m³/s) Aug. 22, 1952, gage height, 14.4 ft (4.39 m), site and datum then in use, from rating curve extended above 660 ft³/s (19 m³/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 25,000 ft³/s (710 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 400 ft³/s (11 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	0730	515	14.6	3.05	.930
June 9	0400	778	22.0	3.55	1.082
June 24	2200	878	24.9	3.73	1.137
Aug. 10	2215	a*2920	82.7	6.62	2.018
Aug. 16	1000	525	14.9	3.07	.936
Aug. 26	1900	734	20.8	3.47	1.058

a From rating extended above 360 ft³/s (10 m³/s).

Minimum, 0.85 ft³/s (0.024 m³/s) Dec. 3, 29, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	1.8	4.2	2.5	5.5	13	8.2	55	368	128	42	37
2	2.3	1.7	3.4	2.0	6.0	13	8.9	47	434	130	39	34
3	2.3	21	2.7	4.0	7.0	13	7.1	52	378	127	34	33
4	1.6	68	2.5	5.0	8.0	12	5.3	61	329	120	25	30
5	1.5	10	3.5	5.5	9.0	12	4.5	52	363	107	22	29
6	1.6	6.1	2.6	5.2	8.0	11	3.3	44	364	99	20	28
7	1.7	5.1	2.0	3.8	7.0	5.6	4.2	45	330	100	17	29
8	1.7	4.5	1.5	3.5	6.0	4.3	2.7	66	451	80	7.3	29
9	1.5	4.0	3.0	3.5	5.0	4.1	2.5	72	652	69	12	29
10	1.7	3.4	6.0	4.0	5.0	4.4	3.7	74	434	63	169	26
11	1.7	4.8	7.5	4.5	6.0	4.2	11	60	357	59	62	21
12	1.5	6.5	7.5	5.0	7.5	4.1	10	50	318	62	30	20
13	1.5	19	7.0	4.5	21	4.2	11	37	298	66	21	24
14	1.6	12	7.9	4.0	49	3.5	10	29	276	56	25	26
15	1.7	11	8.1	4.5	35	3.7	4.5	30	264	55	170	28
16	2.1	11	6.0	5.0	19	9.0	2.9	38	257	63	216	27
17	2.2	12	5.2	5.0	19	8.9	4.8	44	240	88	128	27
18	1.9	11	7.9	6.0	17	8.9	6.3	50	214	59	108	27
19	1.8	5.4	14	5.0	15	8.9	22	66	184	51	86	28
20	1.8	4.2	5.4	5.0	15	11	31	98	154	48	78	20
21	2.2	4.0	5.0	5.0	14	13	36	248	125	43	71	24
22	2.3	3.8	5.8	4.5	14	14	39	210	120	44	65	25
23	2.2	3.6	4.3	4.0	14	12	35	205	123	43	59	24
24	2.3	4.2	5.4	4.5	14	12	39	228	263	38	53	24
25	2.3	36	5.7	5.0	13	11	43	293	287	35	46	23
26	2.2	14	3.8	4.5	13	11	55	347	159	34	133	24
27	2.0	8.0	4.3	4.0	13	11	63	471	141	37	103	23
28	1.9	6.3	4.8	3.5	13	10	69	398	141	36	50	24
29	1.8	5.4	3.8	3.5	---	10	66	370	142	47	43	22
30	1.8	4.7	3.6	3.5	---	11	64	368	142	42	39	17
31	1.8	---	3.1	4.5	---	9.3	---	340	---	41	37	---
TOTAL	58.8	312.5	157.5	134.0	378.0	283.1	672.9	4548	8308	2070	2010.3	782
MEAN	1.90	10.4	5.08	4.32	13.5	9.13	22.4	147	277	66.8	64.8	26.1
MAX	2.3	68	14	6.0	49	14	69	471	652	130	216	37
MIN	1.5	1.7	1.5	2.0	5.0	3.5	2.5	29	120	34	7.3	17
AC-FT	117	620	312	266	750	562	1330	9020	16480	4110	3990	1550

CAL YR 1978 TOTAL 3970.6 MEAN 10.9 MAX 213 MIN 1.3 AC-FT 7880
WTR YR 1979 TOTAL 19715.1 MEAN 54.0 MAX 652 MIN 1.5 AC-FT 39100

07218000 COYOTE CREEK NEAR GOLONDRINAS, NM

LOCATION.--Lat 35°55'00", long 105°09'49", Mora County, Hydrologic Unit 11080004, in Mora Grant, on left bank 0.5 mi (0.8 km) downstream from Coyote Creek damsite, 2.3 mi (3.7 km) northeast of Golondrinas, and at mile 2.7 (4.3 km).

DRAINAGE AREA.--215 mi² (557 km²).

PERIOD OF RECORD.--April 1928 to September 1930 (monthly discharge only, published in WSP 1311), October 1930 to current year.

REVISED RECORDS.--WSP 1281: 1939-40(M), 1941-42, 1945-47. WSP 1511: Drainage area.

GAGE.--Water-stage recorder. Altitude of gage is 6,785 ft (2,068 m), from topographic map. Prior to Apr. 26, 1938, at site 0.4 mi (0.6 km) downstream at different datum (nonrecording gage prior to Apr. 20, 1929). Apr. 26, 1938 to Sept. 25, 1946, at site 139 ft (42 m) downstream at same datum.

REMARKS.--Records fair. Diversions (including off-channel storage) for irrigation of about 4,000 acres (16 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--51 years, 11.3 ft³/s (0.320 m³/s), 8,190 acre-ft/yr (10.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,050 ft³/s (115 m³/s) Aug. 17, 1961, gage height, 9.60 ft (2.926 m), from rating curve extended above 250 ft³/s (7.1 m³/s) on basis of slope-area measurements at gage heights 5.54 ft (1.689 m), 7.74 ft (2.359 m), and 9.60 ft (2.926 m); maximum gage height, 10.1 ft (3.08 m) Aug. 30, 1936 (site and datum then in use); no flow Aug. 4, 1945, Apr. 10, May 9, 10, 1956, Feb. 20, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s (5.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 24	2330	a*895	25.3	5.37	1.637
June 2	0515	256	7.25	3.70	1.128
June 9	0445	276	7.82	3.78	1.152

a From rating curve extended above 210 ft³/s (5.9 m³/s) as explained above.

Minimum discharge, 0.23 ft³/s (0.007 m³/s) Oct. 31, Nov. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	.23	6.6	3.0	4.5	3.8	5.9	18	118	15	3.6	7.8
2	2.0	.23	6.1	2.5	5.0	3.8	6.7	19	203	13	4.5	7.3
3	2.0	22	3.5	3.5	6.0	3.6	7.4	17	172	13	3.2	6.3
4	1.5	52	3.0	4.5	7.0	3.4	7.2	20	114	13	3.5	6.1
5	1.1	14	3.8	4.7	8.0	3.4	5.0	29	106	11	3.0	5.7
6	.50	9.3	3.0	5.3	7.0	3.7	3.5	25	93	9.8	2.7	6.6
7	.41	7.3	2.5	4.7	6.0	3.9	3.4	21	78	9.0	2.7	7.5
8	.34	5.3	2.0	4.0	5.0	4.0	3.9	17	119	7.1	2.5	7.3
9	.36	3.9	3.0	4.0	4.5	4.3	4.5	18	230	6.2	2.4	7.1
10	.41	3.4	4.0	4.2	4.5	4.9	7.9	23	159	5.3	2.0	7.3
11	.44	4.5	5.0	4.7	4.5	4.8	8.6	33	100	4.8	2.4	6.1
12	.40	6.4	6.0	6.2	4.9	9.1	6.8	29	76	4.4	2.1	6.8
13	.44	9.3	5.0	5.0	5.7	12	4.6	20	63	4.1	2.0	3.7
14	.51	7.1	6.0	4.5	8.4	12	4.7	20	53	3.6	2.2	4.2
15	.53	7.0	4.5	5.0	8.0	11	3.3	18	45	3.1	22	4.0
16	.65	6.4	4.0	5.4	6.7	11	5.5	16	39	3.0	26	3.7
17	2.0	5.5	4.2	4.7	5.3	10	11	12	35	3.1	26	2.8
18	1.9	4.8	6.2	4.7	5.5	9.8	16	15	32	7.4	21	2.8
19	1.8	4.5	7.6	4.7	5.3	9.6	15	16	28	5.1	14	3.2
20	1.5	4.2	6.8	5.2	6.2	10	14	22	25	4.4	11	3.0
21	1.5	4.4	6.2	5.7	6.0	13	14	61	22	3.8	9.7	3.8
22	1.7	5.4	5.7	5.2	6.0	13	14	87	17	3.5	12	3.6
23	1.5	4.5	5.2	4.5	5.1	11	14	67	18	3.2	13	3.4
24	1.6	5.3	5.9	5.4	4.8	10	14	127	37	3.2	12	2.4
25	1.5	11	5.7	5.2	4.9	8.6	15	197	32	3.0	12	2.0
26	1.6	11	5.4	4.5	4.8	5.6	14	209	24	2.9	14	1.7
27	1.6	8.9	5.7	4.0	4.7	6.0	13	238	24	2.7	28	1.8
28	1.5	8.0	5.7	3.5	4.2	5.6	16	178	22	2.8	15	2.2
29	1.4	6.6	5.0	3.5	---	6.2	17	141	18	3.5	11	2.1
30	1.2	6.6	4.0	3.5	---	6.6	18	116	17	3.0	9.4	3.0
31	.27	---	3.5	4.0	---	5.8	---	109	---	3.0	8.5	---
TOTAL	36.06	249.06	150.8	139.5	158.5	229.5	293.9	1938	2119	180.0	303.4	135.3
MEAN	1.16	8.30	4.86	4.50	5.66	7.40	9.80	62.5	70.6	5.81	9.79	4.51
MAX	2.0	52	7.6	6.2	8.4	13	18	238	230	15	28	7.8
MIN	.27	.23	2.0	2.5	4.2	3.4	3.3	12	17	2.7	2.0	1.7
AC-FT	72	494	299	277	314	455	583	3840	4200	357	602	268

CAL YR 1978 TOTAL 1048.40 MEAN 2.87 MAX 52 MIN .07 AC-FT 2080
WTR YR 1979 TOTAL 5933.02 MEAN 16.3 MAX 238 MIN .23 AC-FT 11770

07221000 MORA RIVER NEAR SHOEMAKER, NM

LOCATION.--Lat 35°48'01", long 104°46'58", Mora County, Hydrologic Unit 11080004, in Mora Grant, on left bank 5.5 mi (8.8 km) east of Shoemaker, 12.3 mi (19.8 km) upstream from Pedroso Creek, and at mile 39.4 (63.4 km).

DRAINAGE AREA.--1,104 mi² (2,859 km²), of which 71 mi² (184 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1914 to July 1915, October 1915 to August 1918, May 1919 to July 1924, September to November 1924, March to July 1925, June 1927 to current year. Prior to October 1930 monthly discharge only, published in WSP 1311.

REVISED RECORDS.--WSP 1117: Drainage area. WSP 1281: 1931(M), 1933-34(M), 1937(M), 1938(P), 1939-40(M), 1941-42(P). WSP 1731: 1921, 1928, 1951(M). WRD NM-75-1: 1974. WRD NM-78-1: 1977.

GAGE.--Water-stage recorder. Altitude of gage is 6,145 ft (1,873 m), from topographic map. Prior to Oct. 10, 1934, at site 2,000 ft (610 m) upstream at different datum.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 26,000 acres (110 km²) above station. Off-channel lakes make it possible to divert and store water during non-irrigation season. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--61 years (water years 1915-18, 1920-24, 1928-79), 56.5 ft³/s (1.600 m³/s), 40,930 acre-ft/yr (50.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s (430 m³/s) June 3, 1948, gage height, 12.79 ft (3.898 m), from rating curve extended above 2,800 ft³/s (79 m³/s) on basis of slope-area measurements at gage heights 10.09 ft (3.075 m) and 12.79 ft (3.898 m); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORDS.--Floods of Sept. 29, 1904, and June 11, 1913, probably exceeded 30,000 ft³/s (850 m³/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (23 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 27	1015	940	26.6	4.18	1.274	June 25	0600	*2090	59.2	5.73	1.747
June 2	2400	825	23.4	3.94	1.201	July 26	0115	1570	44.5	5.04	1.536
June 9	0945	1450	41.1	4.95	1.509	Aug. 27	0300	1060	30.0	4.28	1.305

Minimum discharge, 0.22 ft³/s (0.006 m³/s) Dec. 4, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.3	1.1	1.0	7.0	6.5	17	4.4	26	471	127	51	63
2	1.2	1.1	.92	6.0	7.5	14	3.2	17	660	113	33	59
3	1.2	2.1	.79	10	7.5	13	3.5	16	623	105	32	56
4	1.1	57	.77	14	7.5	12	3.2	18	464	99	25	54
5	1.1	36	.89	14	7.5	4.1	2.7	26	517	103	19	52
6	1.2	7.7	.79	15	8.4	2.2	2.6	26	477	82	15	49
7	1.3	4.6	.70	14	9.0	1.9	2.5	20	416	80	11	45
8	1.3	3.3	.60	12	9.4	2.8	2.8	18	435	72	9.7	42
9	1.2	2.3	.80	12	10	4.2	4.0	24	1120	61	10	41
10	1.1	1.9	1.0	13	10	3.0	4.2	37	734	49	10	41
11	1.1	2.3	5.0	13	10	2.3	3.4	54	522	44	140	37
12	1.2	2.7	20	13	10	2.0	3.1	50	429	43	42	23
13	.79	2.0	17	12	10	1.9	3.4	39	377	45	25	24
14	.53	1.9	16	11	12	2.0	4.0	28	333	50	19	34
15	1.1	2.1	16	9.9	71	1.9	3.6	20	304	52	61	44
16	1.4	2.1	13	12	57	2.5	3.3	15	330	48	301	43
17	1.3	1.9	12	11	33	3.9	3.4	13	322	96	235	40
18	.86	1.9	12	12	28	3.3	3.9	12	287	82	165	35
19	.70	1.8	13	12	29	2.6	3.0	11	231	59	128	28
20	.71	1.7	12	10	26	3.0	3.0	34	199	57	107	28
21	1.2	1.7	12	9.3	22	3.9	3.2	362	168	50	93	31
22	3.0	1.9	13	9.1	20	3.6	3.2	304	141	40	80	34
23	2.2	1.9	13	8.1	20	2.8	3.6	277	129	35	136	36
24	1.9	2.7	13	6.8	19	2.7	3.2	264	155	30	108	34
25	1.4	20	13	8.9	18	2.7	4.0	461	897	30	82	18
26	1.1	62	12	8.0	16	2.5	5.1	503	354	215	79	14
27	.94	13	14	7.5	16	2.9	4.2	792	221	52	490	16
28	.90	4.4	10	7.0	17	3.0	7.8	651	171	48	132	14
29	.73	1.8	10	6.5	---	2.9	16	528	148	41	87	12
30	1.3	1.3	9.0	6.0	---	3.4	28	485	135	46	73	11
31	1.4	---	8.0	6.0	---	4.8	---	492	---	41	67	---
TOTAL	37.76	248.2	271.26	316.1	517.3	134.8	145.5	5623	11770	2095	2865.7	1058
MEAN	1.22	8.27	8.75	10.2	18.5	4.35	4.85	181	392	67.6	92.4	35.3
MAX	3.0	62	20	15	71	17	28	792	1120	215	490	63
MIN	.53	1.1	.60	6.0	6.5	1.9	2.5	11	129	30	9.7	11
AC-FT	75	492	538	627	1030	267	289	11150	23350	4160	5680	2100

CAL YR 1978 TOTAL 2621.23 MEAN 7.18 MAX 308 MIN .53 AC-FT 5200
WTR YR 1979 TOTAL 25082.62 MEAN 68.7 MAX 1120 MIN .53 AC-FT 49750

07221500 CANADIAN RIVER NEAR SANCHEZ, NM
(Surveillance network station)

LOCATION.--Lat 35°39'08", long 104°22'39", in SW¼ sec. 34, T. 17 N., R. 24 E., San Miguel County, Hydrologic Unit 1180003 on right bank 1,000 ft (300 m) downstream from bridge on State Highway 65, 0.9 mi (1.4 km) upstream from Lagartija Creek, 3.2 mi (5.1 km) northeast of Sanchez, 10 mi (16 km) downstream from Mora River, 25 mi (40 km) southwest of Mosquero, and at mile 777.0 (1,250.2 km).

DRAINAGE AREA.--6,015 mi² (15,579 km²), of which 303 mi² (785 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1912 to December 1914, October 1935 to current year. Monthly discharge only for some periods, published in WSP 1311.

REVISED RECORDS.--WSP 1177: Drainage area. WSP 1281: 1939, 1940(P), 1942, 1946. WSP 1731: 1956-57(M). The revised figures of discharge for September 1942, as published in WSP 1281, supersede those published in WSP 1311.

GAGE.--Water-stage recorder. Altitude of gage is 4,495 ft (1,370 m), from topographic map. See WSP 2121 for history of changes prior to November 1966. Supplemental water-stage recorder at site 0.6 mi (1.0 km) upstream used at various times since 1966.

REMARKS.--Water-discharge records fair. Diversions for irrigation of about 56,000 acres (230 km²) above station.

AVERAGE DISCHARGE.--46 years (water years 1913-14, 1936-79), 191 ft³/s (5.409 m³/s), 138,400 acre-ft/yr (171 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 145,000 ft³/s (4,110 m³/s) June 18, 1965, gage height, about 38.1 ft (11.61 m), from floodmarks, present site and datum, from rating curve extended above 91,000 ft³/s (2,600 m³/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 29, or 30, 1904, probably exceeded 100,000 ft³/s (2,800 m³/s), but is believed to have been less than the peak of June 18, 1965.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,500 ft³/s (99 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 21	0800	a*19700	558	14.60	4.450	June 24	0900	5710	162	10.08	3.072
May 31	1115	3600	102	8.43	2.569	July 25	2330	3600	102	8.20	2.499
June 8	1515	6920	196	10.70	3.261	Aug. 27	0900	4800	136	9.40	2.865

a From rating extended above 5000 ft³/s (140 m³/s) as explained above.

Minimum discharge, 0.20 ft³/s (0.006 m³/s) Oct. 9,10, 12, 13, 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.98	1.5	8.5	13	8.5	24	6.6	5.4	1260	225	126	179
2	.82	1.7	7.1	12	8.5	22	6.9	5.2	2120	206	93	156
3	.78	206	6.4	13	9.0	22	9.7	10	1920	181	101	153
4	.76	465	5.6	14	9.0	21	9.1	26	1680	164	90	136
5	.55	51	6.8	15	9.0	19	7.7	21	1930	141	78	113
6	.39	74	6.5	17	9.4	18	6.6	18	1530	117	58	104
7	.34	36	6.9	19	9.4	18	6.5	22	1120	262	44	88
8	.41	15	7.7	19	11	17	6.8	25	2560	126	36	72
9	.31	7.4	8.3	17	9.4	13	8.0	24	1830	84	28	59
10	.28	4.3	9.0	17	9.4	12	10	23	2150	63	25	55
11	.35	2.9	8.9	17	9.0	11	9.5	21	1500	45	22	53
12	.26	2.8	9.0	18	9.9	9.1	7.7	21	1150	33	27	57
13	.23	2.1	9.8	17	9.9	8.3	8.3	44	924	25	98	51
14	.43	1.9	8.5	18	8.7	7.8	8.9	46	765	22	52	41
15	.34	1.7	8.9	18	8.7	8.4	8.6	39	655	23	142	35
16	.43	1.7	15	18	8.3	7.8	8.1	33	596	25	251	35
17	.62	1.5	18	17	44	7.4	8.4	25	599	24	426	51
18	1.0	1.4	22	18	50	7.2	8.0	21	549	20	539	49
19	1.1	1.3	19	19	36	7.4	7.6	17	492	530	418	45
20	1.2	1.2	18	18	40	7.3	6.9	19	408	115	334	42
21	1.2	1.2	18	17	35	11	6.3	6110	324	104	246	42
22	1.7	1.2	16	16	35	11	6.4	1410	279	124	197	41
23	1.9	1.2	16	14	33	9.4	6.3	711	240	122	153	39
24	1.9	1.4	16	13	33	9.3	6.3	662	1400	79	166	36
25	2.0	2.9	15	16	30	9.3	5.4	866	1300	586	203	35
26	2.0	2.9	17	15	30	8.6	5.5	1430	888	956	146	34
27	2.0	2.6	15	14	28	7.9	5.2	1730	519	544	1530	29
28	1.8	24	17	12	26	8.6	5.1	1740	378	465	738	18
29	1.7	15	17	10	---	8.9	4.9	1340	301	203	444	12
30	1.6	11	15	9.0	---	8.1	4.9	1140	254	324	294	9.6
31	1.5	---	14	8.0	---	7.4	---	2100	---	289	226	---
TOTAL	30.88	943.8	385.9	478.0	567.1	367.2	216.2	19704.6	31621	6227	7331	1869.6
MEAN	1.00	31.5	12.4	15.4	20.3	11.8	7.21	636	1054	201	236	62.3
MAX	2.0	465	22	19	50	24	10	6110	2560	956	1530	179
MIN	.23	1.2	5.6	8.0	8.3	7.2	4.9	5.2	240	20	22	9.6
AC-FT	61	1870	765	948	1120	728	429	39080	62720	12350	14540	3710

CAL YR 1978 TOTAL 9241.32 MEAN 25.3 MAX 907 MIN .00 AC-FT 18330
WTR YR 1979 TOTAL 69742.28 MEAN 191 MAX 6110 MIN .23 AC-FT 138300

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT												
31...	1100	1.4	936	8.4	18.0	14.0	1.3	9.6	11	320	120	74
NOV												
28...	1200	55	838	8.2	10.0	7.0	19	11.0	16	300	170	68
DEC												
19...	1145	21	669	8.3	18.5	4.5	45	11.6	20	270	130	67
JAN												
30...	1400	10	1350	8.0	6.0	1.5	6.5	--	10	480	310	110
FEB												
27...	1330	30	1150	8.4	12.5	7.0	96	11.2	17	460	290	110
APR												
10...	1145	10	1650	8.2	15.0	10.0	18	10.0	12	540	390	99
MAY												
08...	1200	26	995	8.2	22.0	15.5	51	8.5	13	300	140	55
JUN												
12...	1125	1160	580	8.0	30.0	19.0	320	8.3	52	230	130	60
JUL												
10...	1110	64	705	8.0	37.0	26.0	46	7.7	16	280	140	64
AUG												
14...	1100	54	655	8.4	31.5	23.5	14	7.6	16	230	78	55
SEP												
19...	1200	46	710	8.2	27.0	19.5	5.6	8.5	250	280	140	67

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 31...	34	81	2.0	5.0	200	260	28	.4	2.4	599	602	.01
NOV 28...	32	59	1.5	4.0	130	290	16	.4	4.8	584	552	.00
DEC 19...	26	48	1.3	3.4	140	200	16	.3	8.5	483	454	.06
JAN 30...	49	94	1.9	3.5	170	450	26	.3	7.9	1000	843	.02
FEB 27...	44	81	1.7	3.1	170	420	24	.4	8.1	828	793	.12
APR 10...	71	130	2.4	4.0	150	630	35	.5	3.5	1220	1060	.01
MAY 08...	39	75	1.9	3.3	160	260	19	.6	7.4	636	556	.00
JUN 12...	20	30	.9	3.1	100	170	6.7	.3	9.8	371	361	.11
JUL 10...	28	45	1.2	2.9	140	240	13	.3	11	508	488	.02
AUG 14...	22	38	1.1	3.2	150	150	12	.4	12	403	383	.00
SEP 19...	27	52	1.4	2.9	140	240	13	.4	12	472	499	.02

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)
OCT												
31...	.05	.01	.38	.40	.020	--	130	10	--	--	3.2	.6
NOV												
28...	.01	.02	.45	.47	.040	.01	80	0	--	--	4.0	.3
DEC												
19...	.02	.00	.44	.50	.050	.01	60	0	10	5.3	4.8	--
JAN												
30...	.02	.03	.14	.19	.030	.00	100	0	--	--	2.2	.4
FEB												
27...	.10	.06	.39	.57	.020	.03	70	10	--	--	4.5	1.6
APR												
10...	.01	.05	.16	.22	.010	.02	120	0	20	4.1	3.6	5.0
MAY												
08...	.00	.01	.54	.55	.060	.00	100	10	--	--	5.1	1.5
JUN												
12...	.13	.03	1.7	1.8	.380	.00	40	20	0	18	8.5	6.9
JUL												
10...	.00	.02	.32	.36	.050	.00	40	0	--	--	6.5	.4
AUG												
14...	.02	.02	.52	.54	.060	.01	70	<10	--	--	4.8	1.5
SEP												
19...	.13	.13	.38	.53	.020	.03	70	<10	3	4.8	2.5	.5

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
DEC										
19...	1145	1	1	100	70	60	1	1	30	0
APR										
10...	1145	2	3	100	100	120	0	<1	10	0
JUN										
12...	1125	3	1	200	100	40	0	1	10	0
SEP										
19...	1200	1	1	100	100	70	0	<1	10	20

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
DEC 19...	2	<3	3	2	1500	0	2	1	30
APR 10...	3	<3	17	0	480	0	15	0	100
JUN 12...	6	0	18	1	15000	20	15	0	510
SEP 19...	0	<3	1	1	560	<10	3	0	50

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC 19...	10	--	.0	1	1	1	0	20	<3
APR 10...	20	.1	.0	1	0	0	0	30	<3
JUN 12...	0	.1	1.1	3	0	0	0	80	20
SEP 19...	3	.1	.0	1	0	0	0	0	<3

07221500 CANADIAN RIVER NEAR SANCHEZ, NM -- Continued

WATER-QUALITY RECORDS

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 31...	1100	4	6
NOV 28...	1200	14	83
DEC 19...	1145	27	28
JAN 30...	1400	0	3
FEB 27...	1330	9	5
APR 10...	1145	6	12
MAY 08...	1200	53	40
JUN 12...	1125	290	410
JUL 10...	1110	140	95
AUG 14...	1100	80	37
SEP 19...	1200	18	7

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 31...	1100	1.4	14.0	13	.05	94
NOV 27...	1200	12	7.0	45	1.5	88
DEC 19...	1145	21	4.5	42	2.4	100
JAN 30...	1400	10	1.5	16	.43	92
FEB 27...	1330	30	7.0	107	8.7	100
APR 10...	1145	10	10.0	87	2.5	68
MAY 08...	1200	26	15.5	276	19	53
JUN 12...	1125	1160	19.0	564	1770	91
JUL 10...	1110	64	26.0	383	66	55
AUG 14...	1100	54	23.5	40	5.8	98
SEP 19...	1200	46	19.5	32	4.0	98

07222500 CONCHAS RIVER AT VARIADERO, NM

LOCATION.--Lat 35°24'10", long 104°26'35", in NE¼NE¼ sec.36, T.14 N., R.23 E., San Miguel County, Hydrologic Unit 11080005, on left bank 1.5 mi (2.4 km) northeast of Variadero, 14 mi (23 km) west of Conchas Dam, and at mile 15.0 (24.1 km).

DRAINAGE AREA.--523 mi² (1,355 km²), of which 130 mi² (337 km²) is probably noncontributing.

PERIOD OF RECORD.--October 1936 to current year.

REVISED RECORDS.--WSP 1281: 1937-39, 1941-47.

GAGE.--Water-stage recorder. Altitude of gage is 4,390 ft (1,340 m), from topographich map. Prior to Mar. 30, 1942, at site 1.5 mi (2.4 km) upstream at different datum. Mar. 30, 1942 to May 18, 1950, at present site at datum 0.5 ft (0.15 m) higher.

REMARKS.--Records poor. Diversions for irrigation of about 300 acres (1.2 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 15.3 ft³/s (0.433 m³/s), 11,080 acre-ft/yr (13.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 44,000 ft³/s (1,250 m³/s) Sept. 1, 1942, gage height, 19.96 ft (6.084 m). present datum, from rating curve extended above 760 ft³/s (22 m³/s) on basis of slope-area measurements at gage heights 10.5 ft (3.20 m) and 19.96 ft (6.084 m), present datum; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,180 ft³/s (61.7 m³/s) at 0600 hours July 26, gage height, 5.26 ft (1.603 m), from rating curve extended as explained above, no other peak above base of 1,500 ft³/s (42 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.12	.01	.12	.06	.03	6.1	5.5	.00	7.9	.00
2	.00	.00	.10	.00	.12	.06	.03	3.0	43	.00	5.6	.00
3	.00	208	.10	.00	.10	.06	.07	2.1	15	.00	2.0	.00
4	.00	103	.10	.00	.10	.06	.10	1.7	2.9	.00	1.0	.00
5	.00	5.8	.07	.00	.10	.06	.12	1.5	1.3	.00	.50	.00
6	.00	1.9	.06	.00	.10	.06	.12	1.2	.82	24	.20	.00
7	.00	.82	.06	.00	.08	.07	.10	.90	.82	1.8	.10	.00
8	.00	.48	.06	.00	.08	.07	.07	.74	.48	.60	.08	.00
9	.00	.37	.08	.00	.08	.07	.16	.60	.37	.22	.05	.00
10	.00	.28	.10	.00	.08	.07	.32	.54	.28	.12	23	.00
11	.00	.28	.12	.05	.08	.07	.25	.54	.22	.06	2.0	.00
12	.00	.28	.14	.10	.08	.07	.16	.54	.19	.03	.15	.00
13	.00	.25	.16	.12	.08	.06	.14	.54	.14	.00	.05	.00
14	.00	.22	.16	.14	.08	.06	.12	.54	.10	.00	.04	.00
15	.00	.22	.14	.12	.08	.06	.10	.54	.07	.00	78	.00
16	.00	.22	.14	.12	.07	.06	.08	.54	.06	109	91	.00
17	.00	.19	.14	.12	.08	.06	.07	.54	.04	3.6	54	.00
18	.00	.16	.14	.19	.10	.06	.07	.42	.01	.90	10	.00
19	.00	.16	.14	.22	.10	.06	.06	.32	.00	33	5.0	.00
20	.00	.14	.14	.16	.10	.06	.04	.60	.00	46	1.0	.00
21	.00	.14	.12	.14	.10	.14	.04	98	.00	12	.50	.00
22	.00	.12	.12	.12	.08	.19	.03	9.2	.00	4.4	.20	.00
23	.00	.12	.10	.10	.07	.14	.02	2.1	.00	3.2	.00	.00
24	.00	.12	.08	.10	.07	.12	.01	.90	.00	2.0	15	.00
25	.00	.28	.08	.12	.07	.08	.00	.60	.00	1.2	17	.00
26	.00	.28	.08	.14	.06	.07	.00	.48	.00	487	5.0	.00
27	.00	.25	.10	.16	.06	.07	.00	.32	.00	48	1.0	.00
28	.00	.19	.10	.16	.06	.06	.00	.25	.02	15	.50	.00
29	.00	.16	.07	.16	---	.04	.00	.19	.01	7.7	.20	.00
30	.00	.14	.05	.14	---	.04	11	.16	.00	5.3	.10	.00
31	.00	---	.03	.12	---	.03	---	5.4	---	11	.05	---
TOTAL	.00	324.57	3.20	2.81	2.38	2.24	13.31	141.10	71.33	816.13	321.22	.00
MEAN	.000	10.8	.10	.091	.085	.072	.44	4.55	2.38	26.3	10.4	.000
MAX	.00	208	.16	.22	.12	.19	11	98	43	487	91	.00
MIN	.00	.00	.03	.00	.06	.03	.00	.16	.00	.00	.00	.00
AC-FT	.00	644	6.3	5.6	4.7	4.4	26	280	141	1620	637	.00

CAL YR 1978 TOTAL 1112.82 MEAN 3.05 MAX 208 MIN .00 AC-FT 2210
WTR YR 1979 TOTAL 1698.29 MEAN 4.65 MAX 487 MIN .00 AC-FT 3370

07223000 BELL RANCH CANAL BELOW CONCHAS DAM, NM

LOCATION.--Lat 35°24'19", long 104°11'07", San Miguel County, Hydrologic Unit 11080006, in Pablo Montoya Grant, on left bank 1,270 ft (390 m) downstream from Conchas Dam, and 23.5 mi (37.8 km) north of Newkirk.

PERIOD OF RECORD.--October 1942 to current year. Prior to October 1965, published as "near Conchas Dam."

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 4,150 ft (1,265 m), from headgate elevations.

REMARKS.--Records good. Canal diverts from Conchas Lake (station 07223500) for irrigation of about 700 acres (3 km²) on Bell Ranch. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 21 ft³/s (0.595 m³/s) July 10-13, Sept. 7-10, 1948, June 27, Aug. 7, 1951; no flow many days each year.

MONTHLY DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Month	Maximum	Minimum	Mean	Diversion in acre-feet
October	8.8	0	1.59	98
November	0	0	0	0
December	.43	0	.11	7.0
CAL YR 1978	11	0	2.32	1,680
January	5.7	0	.46	28
February	0	0	0	0
March	8.4	0	3.99	245
April	9.8	0	6.55	390
May	9.0	2.9	5.48	337
June	8.7	0	4.86	289
July	13	0	8.20	504
August	7.2	0	.86	53
September	11	1.8	7.52	447
WTR YR 1979	13	0	3.31	2,400

07223300 CONCHAS CANAL BELOW CONCHAS DAM, NM

LOCATION.--Lat 35°22'30", long 104°10'03", San Miguel County, Hydrologic Unit 11080006, in Pablo Montoya Grant, on left bank at upstream end of tunnel transition section, 1.0 mi (1.6 km) downstream from headgates in Conchas Dam, and 21.5 mi (34.6 km) north of Newkirk.

PERIOD OF RECORD.--September 1945 to June 1949, April 1954 to June 1955, September 1961 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,137.1 ft (1,260.99 m) National Geodetic Vertical Datum of 1929 (from Bureau of Reclamation elevation of concrete structure). Prior to Nov. 19, 1948, at site 0.8 mi (1.3 km) upstream at different datum. Nov. 19, 1948 to Dec. 31, 1973, at present site and datum. Jan. 1, 1974 to Sept. 30, 1978, flowmeters in each of two 90-in (2.290 m) diameter steel conduits in operations building 1.0 mi (1.6 km) upstream.

REMARKS.--Records good. No diversion or wasteway between canal headworks and gage. Water is diverted from Conchas Lake for irrigation of about 35,000 acres (140 km²) on Tucumcari Project (1956 conditions).

COOPERATION.--Records October to December furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 751 ft³/s (21.3 m³/s) Aug. 31, 1961; no flow many days each year.

MONTHLY DIVERSION, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Month	Maximum	Minimum	Mean	Diversion in acre-feet
October	0	0	0	0
November	0	0	0	0
December	0	0	0	0
CAL YR 1978	-	0	71.0	51,430
January	0	0	0	0
February	0	0	0	0
March	.02	0	.002	.1
April	.16	0	.008	.5
May	264	0	53.8	3,310
June	251	0	59.6	3,550
July	243	90	184	11,280
August	276	115	255	15,680
September	310	104	230	13,680
WTR YR 1979	276	0	65.6	47,480

07223500 CONCHAS LAKE AT CONCHAS DAM, NM

LOCATION.--Lat 35°24'10", long 104°11'25", San Miguel County, Hydrologic Unit 11080003, in Pablo Montoya Grant, stilling well within concrete portion of Conchas Dam on Canadian River, 24 mi (39 km) north of Newkirk, and at mile 746.0 (1,200.3 km).

DRAINAGE AREA.--7,409 mi² (19,189 km²), of which 433 mi² (1,121 km²), is probably noncontributing.

PERIOD OF RECORD.--December 1938 to September 1965 (monthend contents only), October 1965 to current year. Prior to October 1965, published as Conchas Reservoir near Conchas Dam.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

REMARKS.--Lake is formed by dam consisting of concrete main section and earthfill wings, completed Sept. 15, 1939; storage began Dec. 29, 1938. Capacity, 330,100 acre-ft (407 hm³) between elevations 4,060.0 ft (1,237.49 m) and 4,201.0 ft (1,280.46 m), crest of 300 ft (91.4 m) ungated service spillway. Inactive storage, 70,490 acre-ft (86.9 hm³) at elevation 4,155.0 ft (1,266.44 m). Lake usually not drawn below elevation, 4,157.35 ft (1,267.160 m), sill of irrigation outlet, capacity, 77,790 acre-ft (95.9 hm³), except for minor sluicing and operation of small powerplant; during 1954-55, 1964 and 1976 there was some pumping into Conchas Canal. Capacity of 198,800 acre-ft (245 hm³) between elevations 4,201.0 ft (1,280.46 m), crest of 300 ft (91.4 m) ungated service spillway, and 4,218.0 ft (1,285.65 m), crest of 3,000 ft (914 m) ungated emergency spillway, acts as detention storage in the control of floods Figures given herein represent total contents. Lake is used for irrigation, flood control, and recreation. Diversions above station for irrigation of about 57,000 acres (230 km²). Direct diversions through Conchas Dam to Bell Ranch Canal and Conchas Canal (stations 07223000, 07223300) irrigate about 36,000 acres (150 km²) near Tucumcari, and on Bell Ranch.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 479,600 acre-ft (591 hm³) Apr. 24, 1942, elevation, 4,208.41 ft (1,282.723 m); minimum after initial filling, 78,080 acre-ft (96.3 hm³) Sept. 18, 1976, elevation, 4,157.44 ft (1,267.188 m); minimum elevation, 4,155.80 ft (1,266.688 m) Sept. 24, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 179,500 acre-ft (221 hm³) Aug. 30, elevation, 4,181.00 ft (1,274.369 m); minimum, 80,700 acre-ft (99.5 hm³) Nov. 2, elevation, 4,158.25 ft (1,267.435 m).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on Survey by Corps of Engineers in 1970)

4,155	70,490	4,170	125,100
4,160	86,520	4,180	173,900
4,165	104,600	4,190	237,100

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	82570	80730	90620	90730	91570	92420	92070	91120	123600	174100	177500	178900
2	82440	80700	90620	90730	91570	92460	92030	91120	128200	174000	177600	178500
3	82400	84160	90620	90730	91640	92460	92100	91040	131700	173700	177500	178200
4	82240	86190	90660	90730	91640	92460	92070	90980	134900	173600	177300	177800
5	82170	88810	90660	90730	91640	92490	92030	90940	138100	173400	177100	177400
6	82140	88950	90660	90760	91640	92490	92000	90870	141100	173200	176600	176800
7	82070	89300	90660	90760	91680	92530	91930	90760	143000	173500	176100	176100
8	82010	89470	90660	90800	91680	92530	91890	90620	147100	173700	175400	175700
9	81940	89720	90660	90800	91680	92530	92030	90590	150500	173500	174700	175000
10	81910	89720	90660	90800	91680	92600	92070	90550	154200	173100	175700	174500
11	81840	89920	90660	90830	91680	92600	92030	90520	157000	172600	177500	174000
12	81740	89990	90620	90870	91710	92600	91930	90480	158900	172200	177000	173400
13	81680	89990	90620	90940	91710	92560	91890	90480	160600	171700	176100	172800
14	81610	90130	90590	90980	91710	92490	91860	90450	161600	171100	175600	172300
15	81580	90240	90590	90980	91710	92460	91820	90450	162600	171000	176300	171700
16	81510	90240	90590	91010	91710	92460	91780	90170	163800	170900	177500	171300
17	81480	90240	90620	91080	91710	92420	91780	89650	165200	170600	177600	170700
18	81380	90240	90620	91290	91750	92390	91750	89230	166100	170200	178100	170400
19	81350	90240	90660	91330	91780	92320	91680	88610	166900	170700	178300	170000
20	81250	90240	90660	91330	91930	92320	91610	88370	167700	170700	178500	169500
21	81220	90270	90660	91360	92000	92530	91540	96200	168200	170400	178400	169100
22	81180	90270	90660	91360	92140	92490	91560	99530	168000	170200	178200	168800
23	81150	90270	90660	91400	92170	92460	91430	100900	167800	170100	177800	168500
24	81120	90450	90660	91430	92210	92420	91330	102200	170100	169900	177300	168000
25	81020	90480	90690	91430	92280	92420	91290	103500	171300	170200	177000	167600
26	80990	90480	90690	91470	92320	92390	91190	105600	172900	175000	176700	167100
27	80960	90480	90690	91540	92320	92390	91120	108600	173700	176000	177900	166900
28	80890	90480	90690	91540	92390	92350	91080	111700	174200	176900	178900	166300
29	80820	90480	90690	91540	---	92280	91120	114300	174300	177000	179400	165800
30	80790	90550	90690	91540	---	92210	91120	116600	174200	177100	179400	165300
31	80730	---	90730	91540	---	92100	---	121000	---	177800	179200	---
MAX	82570	90550	90730	91540	92390	92600	92100	121000	174300	177800	179400	178900
MIN	80730	80700	90590	90730	91570	92100	91080	88370	123600	169900	174700	165300
(†)	4158.26	4161.17	4161.22	4161.45	4161.69	4161.61	4161.33	4169.05	4180.06	4180.70	4180.95	4178.41
(‡)	-1900	+9820	+180	+810	+850	-290	-980	+29880	+53200	+3600	+1400	-13900

CAL YR 1978 MAX 118000 MIN 80700 ‡ -17270
WTR YR 1979 MAX 179400 MIN 80700 ‡ +82670

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

07226500 UTE CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°26'18", long 103°31'31", in NW¼SE¼ sec. 15, T. 14 N., R. 32 E., Harding County, Hydrologic Unit 11080007, on right bank 1.9 mi (3.1 km) downstream from Alamosa Creek, 4.5 mi (7.2 km) upstream from State Road 155, 4.7 mi (7.6 km) upstream from high-water line of Ute Reservoir, 8.2 mi (13.2 km) northwest of Logan, and at mile 10.0 (16.1 km).

DRAINAGE AREA.--2,060 mi^2 (5,335 km^2), of which 617 mi^2 (1,598 km^2) is probably uncontributing.

PERIOD OF RECORD.--January 1912 to May 1914 (gage heights and discharge measurements only), January 1942 to current year. Records of discharge for August 1904 to June 1906, April 1909 to December 1911, published in WSP 307, are unreliable and should not be used.

REVISED RECORDS.--WSP 1281: 1942-48, 1950, 1951(P). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 3,815 ft (1,163 m), from topographic map. See WSP 2121 for history of changes prior to Oct. 1, 1964.

REMARKS.--Records poor. Diversions for irrigation of a few hundred acres above station. Several observations of water temperatures were made during the year.

AVERAGE DISCHARGE.--37 years, 24.7 ft^3/s (0.700 m^3/s), 17,900 acre-ft/yr (22.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,500 ft^3/s (694 m^3/s) May 28, 1946, July 12, 1951, gage height, 8.4 ft (2.56 m), site and datum then in use, from rating curve extended above 7,700 ft^3/s (220 m^3/s) on basis of slope-area measurements at gage heights 5.2 ft (1.58 m) and 7.2 ft (2.19 m); maximum gage height, 8.76 ft (2.670 m) July 17, 1972; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 1, 1914, reached a stage of 22.95 ft (6.995 m) site and datum then in use. Another major flood reached a stage of 16.0 ft (4.88 m). 1942 datum, sometime in 1941, from information furnished by Bureau of Reclamation, discharge, about 70,000 ft^3/s (2,000 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge 15,000 ft^3/s (425 m^3/s) at 0500 hours Nov. 4, gage height, 7.50 ft (2.286 m), from rating curve extended above 2,800 ft^3/s (79 m^3/s), no other peak above base of 3,700 ft^3/s (100 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.01	.01	.00	.00	209	5.0	266	1.0
2	.00	.00	.00	.00	.02	.00	.01	.00	164	2.0	100	.20
3	.00	59	.00	.00	.02	.00	.07	32	100	1.0	30	.10
4	.00	3360	.00	.00	.01	.00	.01	20	80	.20	10	.00
5	.00	200	.00	.00	.01	.00	.76	7.0	194	.00	3.0	.00
6	.00	35	.00	.00	.02	.00	4.9	4.0	100	9.9	1.0	.00
7	.00	8.3	.00	.00	.02	.00	3.6	2.0	50	162	.20	1.2
8	.00	3.0	.00	.00	.02	.00	1.5	1.0	20	124	.00	.08
9	.00	.00	.00	.00	.05	.00	1.3	.50	10	60	.00	.00
10	.00	.00	.00	.00	.05	.00	2.3	.20	5.0	20	.00	.00
11	.00	.00	.00	.00	.05	.00	2.0	.00	2.0	5.0	.00	.00
12	.00	.00	.00	.00	.10	.00	2.0	.00	.50	1.0	.00	.00
13	.00	.00	.00	.00	.10	.00	1.3	.00	.20	.20	.00	.00
14	.00	.00	.37	.00	.10	.00	.60	.00	.00	.00	.00	.00
15	.00	.00	.27	.00	.10	.00	.13	.00	.00	.00	14	.00
16	.00	.00	.00	.00	.04	.00	.07	.00	.00	177	1210	.00
17	.00	.00	.00	.00	.02	.00	67	.00	.00	203	639	.00
18	.00	.00	.00	.05	.00	.00	73	.00	.00	115	200	.00
19	.00	.00	.00	.05	.00	.00	43	.00	.00	20	50	.00
20	.00	.00	.02	.03	.01	.00	38	150	.00	5.0	10	.00
21	.00	.00	.01	.05	.22	.06	29	198	.00	1.0	2.0	.00
22	.00	.00	.01	.04	.10	.00	22	35	.00	.30	.50	.00
23	.00	.00	.01	.01	.02	3.9	12	10	.00	.00	.00	.05
24	.00	.00	.02	.05	.02	4.9	9.7	199	.00	.00	326	.10
25	.00	.00	.05	.05	.02	2.9	5.8	116	107	477	200	.00
26	.00	.00	.03	.05	.03	1.2	3.0	159	127	842	350	.00
27	.00	.00	.00	.03	.03	.84	1.0	153	71	430	1340	.00
28	.00	.00	.00	.02	.03	.50	.50	50	40	256	449	.00
29	.00	.00	.00	.01	---	.22	.20	20	20	187	100	.00
30	.00	.00	.00	.00	---	.10	.00	10	10	320	20	.00
31	.00	---	.00	.00	---	.03	---	206	---	222	5.0	---
TOTAL	.00	3665.30	.79	.44	1.22	14.66	324.75	1452.70	1309.70	3645.60	5325.70	2.73
MEAN	.000	122	.025	.014	.044	.47	10.8	46.9	43.7	118	172	.091
MAX	.00	3360	.37	.05	.22	4.9	73	206	209	842	1340	1.2
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	7270	1.6	.9	2.4	29	644	2880	2600	7230	10560	5.4

CAL YR 1978 TOTAL 5047.75 MEAN 13.8 MAX 3360 MIN .00 AC-FT 10010
WTR YR 1979 TOTAL 15743.59 MEAN 43.1 MAX 3360 MIN .00 AC-FT 31230

07226800 UTE RESERVOIR NEAR LOGAN, NM

LOCATION.--Lat 35°20'35", long 103°26'37", in NW¼ sec.21, T.13N., R.33 E., Quay County, Hydrologic Unit 11080006, on face of Ute Dam on Canadian River, 2.5 mi (4.0 km) southwest of Logan, 3.5 mi (5.6 km) downstream from Ute Creek, and at mile 673.1 (1.083.0 km).

DRAINAGE AREA.--11,140 mi² (28,853 km²), of which 1,110 mi² (2,875 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1963 to September 1965 (monthend contents only), October 1965 to current year.

REVISED RECORDS.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Interstate Stream Commission). Prior to Feb. 25, 1974, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by earthfill dam 121 ft (37 m)) high above streambed, 2,050 ft (620 m) long; an earth-dike section on north (left) bank of Canadian River is 2,860 ft (870 m) long and has a maximum height of 27 ft (8 m); a concrete spillway section 840 ft (260 m) long is constructed between main embankment and the dike. Construction completed in May 1963; storage began Dec. 13, 1962. Capacity, 90,470 acre-ft (112 hm³) at elevation 3,760.0 ft (1,146.05 m), crest of 840 ft (260 m) ungated service spillway. Top of dam is at elevation 3,801.0 ft (1,158.54 m). Maximum design capacity of 285,700 acre-ft (352 hm³) at elevation 3,791.0 ft (1,155.50 m), 31.0 ft (9.4 m) above crest of spillway, allows 195,200 acre-ft (241 hm³) of capacity for protection of the structure. Dead storage, 12,620 acre-ft (15.6 hm³) at elevation 3,725.0 ft (1,135.38 m), sill of outlet gate ; inactive pool of 37,530 acre-ft (46.3 hm³) below elevation 3,741.6 ft (1,140.44 m) is maintained for fish and wildlife. Figures given herein represent total contents. Reservoir is planned to furnish water for municipal and industrial uses and for recreational purposes; some incidental flood control. Diversions above station for irrigation of about 90,000 acres (360 km²).

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 119,900 acre-ft (148 hm³) June 17, 1969, elevation, 3,762.4 ft (1,146.78 m); minimum since reservoir first filled in September 1965, 68,680 acre-ft (84.7 hm³) Apr. 12, 1977, elevation, 3,753.59 ft (1,144.094 m); minimum elevation observed, 3,752.8 ft (1,143.85 m) May 29, 1966, contents, 82,360 acre-ft (102 hm³/s).

EXTREMES FOR CURRENT YEAR.--Maximum contents, 92,650 acre-ft (114 hm³) Aug. 28, elevation, 3,760.56 ft (1,146.219 m); minimum, 71,410 acre-ft (88.0 hm³) Nov. 3, elevation, 3,754.46 ft (1,144.359 m).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Geological Survey and New Mexico Interstate Stream Commission in 1975)

3,754	69,960	3,760	90,470
3,756	76,380	3,762	98,490
3,758	83,150		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73390	71500	77570	76800	76800	76640	75920	75820	82280	82210	84320	90780
2	73160	71470	77400	76800	76800	76640	76020	75690	82800	82140	84420	90660
3	73100	71790	77400	76800	76800	76470	76020	75690	83050	82040	84640	90550
4	73030	76570	77430	76800	76800	76440	75980	75790	83080	81940	84780	90470
5	72940	77400	77400	76800	76800	76410	75980	75890	83330	81760	84740	90470
6	72870	77600	77400	76800	76800	76410	76020	75790	83430	82080	84600	90430
7	72810	77630	77400	76800	76800	76410	75950	75660	83500	82040	84460	91950
8	72780	77670	77300	76800	76800	76310	75920	75490	83400	82350	84350	91440
9	72680	77700	77300	76800	76800	76240	75950	75330	83430	82420	84250	91090
10	72650	77570	77300	76800	76800	76310	76050	75270	83500	82490	84110	90820
11	72590	77370	77300	76700	76800	76280	75890	75300	83610	82350	84070	90740
12	72460	77700	77200	76700	76800	76280	75820	75230	83580	82250	84040	90510
13	72400	77630	77200	76700	76800	76210	75890	75270	83650	82110	83890	90430
14	72360	77500	77200	76700	76800	76150	75890	75170	83500	82040	83750	90320
15	72300	77530	77200	76700	76840	76180	75850	75100	83330	82040	84210	90320
16	72270	77570	77100	76700	76770	76180	75790	75130	83360	82280	88090	90280
17	72200	77570	77100	76700	76710	76210	76180	74970	83260	82670	90280	90200
18	72080	77500	77100	76700	76840	76080	76180	75000	83120	82770	90590	90170
19	72080	77570	77100	76700	76870	76110	76210	74840	82940	82800	90470	90130
20	72050	77500	77000	76700	76810	76110	76180	76540	82840	82840	90470	90090
21	71980	77530	77000	76700	76840	76380	76150	78200	82770	82800	90430	90090
22	71890	77530	77000	76700	76810	76310	76080	78770	82670	82600	90360	90090
23	71820	77530	77000	76700	76670	76280	76080	78870	82420	82730	90240	90050
24	71890	77630	77000	76700	76670	76310	76050	79440	82560	82670	90470	90010
25	71690	77730	76900	76700	76740	76340	75920	79640	82630	83190	90390	89980
26	71760	77600	76900	76700	76710	76210	75890	79810	82670	85140	90660	89900
27	71690	77600	76900	76700	76640	76280	75820	79980	82630	85710	92610	89830
28	71660	77600	76900	76700	76740	76240	75790	80090	82530	85240	91950	89750
29	71630	77570	76900	76700	---	76240	75750	80050	82390	84670	91520	89710
30	71500	77530	76900	76700	---	76050	75790	79950	82280	84420	91170	89640
31	71540	---	76800	76700	---	76110	---	81380	---	84180	91010	---
MAX	73390	77730	77570	76800	76870	76640	76210	81380	83650	85710	92610	91950
MIN	71500	71470	76800	76700	76640	76050	75750	74840	82280	81760	83750	89640
(†)	3756.50	3756.35	-	-	3756.11	3755.92	3755.82	3757.49	3757.75	3758.29	3760.14	3759.78
(‡)	-1850	+5990	-730	-100	+40	-630	-320	+5590	+900	+1900	+6830	-1370

CAL YR 1978 MAX 78400 MIN 71470 ‡ +1440
WTR YR 1979 MAX 92610 MIN 71470 ‡ +16250

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
NOTE.--No gage-height record Dec. 5 to Feb. 14.

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected in Ute Reservoir impounded by Ute Dam on the Canadian River.

PERIOD OF RECORD.--Water years 1963 to current year.

REMARKS.--Samples for chemical analyses are collected semi-annually at surface, and/or bottom levels of selected sites. Site locations are as follows: Site A, 0.4 mi (0.6 km) upstream from Ute Dam; Site B, 0.6 mi (1.0 km) upstream from Ute Dam; Site C, 1.9 mi (3.1 km) upstream from Ute Dam; Site D, on the Ute Creek arm, 5.7 mi (9.2 km) upstream from Ute Dam; Site E, 3.8 mi (6.1 km) upstream from Ute Dam at confluence of Ute Creek and Canadian River arms; Site F, on the Canadian River arm, 9.1 mi (14.6 km) upstream from Ute Dam; Site G, on the Ute Creek arm, 6.9 mi (11.1 km) upstream from Ute Dam; Site H, on the Canadian River arm, 12.8 mi (20.6 km) upstream from Ute Dam; Site I, on the Canadian River arm, 5.0 mi (8.0 km) upstream from Ute Dam.

07226510 - UTE RE AT SITE F,9.1 MILES AB UTE DAM, NM
CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)
MAY									
10...	0954	17	22	980	8.3	13.5	14.0	8.5	190
10...	0956	15	22	--	--	13.5	14.0	8.5	--
10...	0958	10	22	--	--	13.5	14.0	8.2	--
10...	1000	5.0	22	--	--	13.5	14.0	8.2	--
AUG									
15...	0930	5.0	--	900	8.1	--	23.0	5.1	130

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
MAY									
10...	0	40	22	150	4.7	6.5	220	220	43
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
AUG									
15...	0	28	15	120	4.6	5.9	200	200	35

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
MAY								
10...	.9	2.3	601	617	.02	.00	280	10
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
AUG								
15...	.9	.5	521	526	.05	.00	240	10

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

07226510 - UTE RE AT SITE F,9.1 MILES AB UTE DAM, NM

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
MAY 10...	0954	17	22	0	3
AUG 15...	0930	5.0	--	12	10

07226515 - UTE RE AT SITE I,5.0 MILES AB UTE DAM, NM

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)
MAY 10...	1023	32	37	950	8.3	13.5	14.0	8.3	170
10...	1025	30	37	--	--	13.5	14.0	8.3	--
10...	1027	25	37	--	--	13.5	14.0	7.7	--
10...	1029	20	37	--	--	13.5	14.0	7.7	--
10...	1031	15	37	--	--	13.5	14.0	8.0	--
10...	1033	10	37	--	--	13.5	14.0	8.4	--
10...	1035	5.0	37	--	--	13.5	14.0	8.5	--
AUG 15...	0940	5.0	--	950	8.2	--	24.0	6.8	150

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
MAY 10...	0	35	21	140	4.6	6.4	220	210	41
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
AUG 15...	0	30	18	130	4.6	6.4	200	210	38

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
MAY 10...	.9	3.0	579	590	.08	.00	270	20
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--
[illegible] 15...	.9	.8	553	555	.03	.01	250	.10

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Contunued

07226515 - UTE RE AT SITE I,5.0 MILES AB UTE DAM, NM — Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
MAY 10...	1023	32	37	1	5
AUG 15...	0940	5.0	--	1	3

07226520 - UTE RE AT SITE G,6.9 MILES AB UTE DAM, NM

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)
MAY 10...	1053	3.5	7.0	930	8.3	15.0	14.5	7.1	210
AUG 15...	1000	5.0	--	890	8.2	--	23.5	7.2	140

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
MAY 10...	0	49	21	140	4.2	6.3	220	210	42
AUG 15...	0	29	16	130	4.8	6.5	200	190	39

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
MAY 10...	.9	4.1	575	606	.10	.00	260	10
AUG 15...	.9	5.6	497	538	.05	.00	220	10

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
MAY 10...	1053	3.5	7.0	9	19
AUG 15...	1000	5.0	--	20	23

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226560 UTE RE AT SITE B,0.6 MILES AB UTE DAM, NM

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SAMPLING DEPTH (FT) (00003)	RESERVOIR DEPTH (FEET) (72025)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)
MAY										
10...	0838	5.0	53	940	8.4	12.0	14.0	3.9	8.4	15
10...	0842	10	53	--	8.4	12.0	14.0	--	8.4	--
10...	0846	15	53	--	8.4	12.0	14.0	--	8.3	--
10...	0850	20	53	--	8.4	12.5	14.0	--	8.4	--
10...	0854	25	53	--	8.4	12.5	14.0	--	8.6	--
10...	0858	30	53	--	8.4	12.5	14.0	--	8.2	--
10...	0902	35	53	--	8.4	12.5	14.0	--	7.9	--
10...	0906	40	53	--	8.4	13.0	14.0	--	7.4	--
10...	0910	45	53	--	8.4	13.0	14.0	--	6.8	--
10...	0915	48	53	940	8.4	13.0	14.0	6.8	6.8	14
AUG										
15...	0825	5.0	52	915	8.2	--	23.5	1.7	6.2	18
15...	0828	10	52	--	8.2	--	23.5	--	6.2	--
15...	0830	15	52	--	8.2	--	23.5	--	6.2	--
15...	0832	20	52	--	8.2	--	23.0	--	6.1	--
15...	0834	25	52	--	8.2	--	23.5	--	6.1	--
15...	0836	30	52	--	8.2	--	23.5	--	6.2	--
15...	0838	35	52	--	8.2	--	24.0	--	2.9	--
15...	0840	40	52	--	8.2	--	21.5	--	.5	--
15...	0842	45	52	--	8.2	--	20.0	--	.2	--
15...	0845	47	52	940	8.2	--	19.0	2.5	.1	18
15...	0848	50	52	--	8.2	--	19.0	--	.1	--

DATE	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)
MAY									
10...	180	0	38	21	150	4.8	6.3	210	230
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	180	0	38	21	140	4.5	6.9	210	220
AUG									
15...	150	0	31	18	150	5.3	6.4	210	220
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	150	0	32	18	150	5.3	6.3	210	220
15...	--	--	--	--	--	--	--	--	--

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226560 - UTE RE AT SITE B,0.6 MILES AB UTE DAM, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
MAY									
10...	42	.9	3.2	578	--	.06	.08	.01	.48
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	41	.9	3.2	575	--	.06	.07	.01	.47
AUG									
15...	38	.9	3.3	549	595	.00	.04	.07	.36
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	38	.9	4.0	552	596	.00	.04	.08	.52
15...	--	--	--	--	--	--	--	--	--

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
MAY									
10...	.55	.010	.00	220	10	0	4.2	3.1	.7
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--
10...	.54	.010	.00	1200	0	0	--	4.0	.3
AUG									
15...	.43	.030	.03	240	10	<1	18	7.3	.6
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--
15...	.60	.030	.01	240	<10	60	8.6	8.4	.6
15...	--	--	--	--	--	--	--	--	--

07226800 UTE RESERVOIR NEAR LOGAN, NM — Continued

07226560 - UTE RE AT SITE B,0.6 MILES AB UTE DAM, NM — Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
MAY										
10...	0838	5	5	300	200	220	1	0	0	0
10...	0915	2	2	300	300	1200	1	0	20	0
AUG										
15...	0825	3	3	300	200	240	4	<1	0	10
15...	0845	3	3	300	200	240	24	<1	0	0

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
MAY									
10...	3	0	0	0	120	10	6	0	10
10...	4	0	0	0	100	0	7	0	10
AUG									
15...	0	<3	2	1	80	10	55	58	10
15...	0	<3	2	1	100	<10	200	0	70

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY									
10...	0	.3	.0	1	1	0	0	20	20
10...	0	.3	.1	1	1	0	0	10	10
AUG									
15...	<1	.0	.1	1	1	0	0	0	<3
15...	60	.2	.3	1	1	0	0	0	<3

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SAMP-LING DEPTH (FT) (00003)	RESER-VOIR DEPTH (FEET) (72025)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
MAY											
10...	0915	48	53	24	<.4	9.7	1.6	8.9	1.7	.15	11
AUG											
15...	0825	5.0	52	17	<.4	9.8	2.7	9.2	2.8	.25	8.9

07226800 UTE RESERVOIR NEAR LOGAN, NM -- Continued

07226560 - UTE RE AT SITE B,0.6 MILES AB UTE DAM, NM -- Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-AZINON, TOTAL (UG/L) (39570)
MAY								
10...	0915	.0	.00	.0	.00	.00	.00	.01
AUG								
15...	0825	.0	.00	.0	.00	.00	.00	.00

DATE	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	MALA-THION, TOTAL (UG/L) (39530)	METHYL PARA-THION, TOTAL (UG/L) (39600)
MAY									
10...	.00	.00	.00	.00	.00	.00	.00	.00	.00
AUG									
15...	.00	.00	.00	.00	.00	.00	.00	.00	.00

DATE	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOTAL TRI-THION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	MIREX, TOTAL (UG/L) (39755)
MAY								
10...	.00	.00	0	.00	--	--	.00	.00
AUG								
15...	.00	.00	0	.00	.00	.00	.00	.00

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SAMP-LING DEPTH (FT) (00003)	RESER-VOIR DEPTH (FEET) (72025)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
MAY					
10...	0838	5.0	53	0	16
10...	0915	48	53	2	14
AUG					
15...	0825	5.0	52	2	6
15...	0845	47	52	19	19

07226800 UTE RESERVOIR NEAR LOGAN, NM -- CONTINUED

07226560 UTE RE AT SITE B,0.6 MILES AB UTE DAM, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

IDENTIFICATION OF PHYTOPLANKTON

DATE	MAY 10,79	AUG 15,79
TIME	0838	0825
TOTAL CELLS/ML	900	1200
DIVERSITY: DIVISION	1.3	1.6
.CLASS	1.3	1.6
..ORDER	1.3	1.9
...FAMILY	1.3	2.4
....GENUS	1.3	2.8

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)				
.CHLOROPHYCEAE				
..CHLOROCOCCALES				
...OOCYSTACEAE				
....ANKISTRODESMUS	--	-	13	1
....OOCYSTIS	460#	51	65	5
....TETRAEDRON	--	-	13	1
...SCENEDESMACEAE				
....SCENEDESMUS	--	-	310#	25
..TETRASPORALES				
...PALMELLACEAE				
....SPHAEROCYSTIS	--	-	100	8
..VOLVOCALES				
...CHLAMYDOMONADACEAE				
....CHLAMYDOMONAS	--	-	13	1
CHRYSOPHYTA				
.BACILLARIOPHYCEAE				
..CENTRALES				
...COSCINODISCACEAE				
....STEPHANODISCUS	39	4	--	-
..PENNALES				
...FRAGILARIACEAE				
....FRAGILARIA	--	-	270#	22
...NITZSCHIACEAE				
....NITZSCHIA	--	-	91	7
CRYPTOPHYTA (CRYPTOMONADS)				
.CRYPTOPHYCEAE				
..CRYPTOMONADALES				
...CRYPTOMONADACEAE				
....CRYPTOMONAS	13	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)				
.CYANOPHYCEAE				
..CHROOCOCCALES				
...CHROOCOCCACEAE				
....AGMENELLUM	--	-	100	8
....ANACYSTIS	390#	43	250#	20

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

07227000 CANADIAN RIVER AT LOGAN, NM

LOCATION.--Lat 35°21'25", long 103°25'03", in NE¼NE¼ sec.15, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080006, on left bank 1,100 ft (340 m) upstream from bridge on U.S. Highway 54, 0.7 mi (1.1 km) south of Logan, 1.4 mi (2.3 km) upstream from Chicago, Rock Island & Pacific Railroad Co. bridge, 2.0 mi (3.2 km) downstream from Ute Dam, 4.3 mi (6.9 km) upstream from Revuelto Creek, and at mile 672.0 (1,081.2 km).

DRAINAGE AREA.--11,141 mi^2 (28,855 km^2), of which 1,110 mi^2 (2,875 km^2) is probably noncontributing.

PERIOD OF RECORD.--June 1904 to November 1905 (gage heights and discharge measurements only), December 1908 to September 1909, February 1910, April to July 1910, August 1910 to September 1911 (gage heights and discharge measurements only), October 1911 to May 1914, January to May 1924, September 1924 to July 1925, January 1927 to April 1934, August 1934 to current year. Monthly discharge only for some periods, published in WSP 1311. Records for December 1909, January 1910, and May to July 1934, published in WSP 267, 287, and 762 are unreliable and should not be used. Published as South Canadian River June to September 1904.

REVISED RECORDS.--WSP 1087: 1935-36. WSP 1117: Drainage area. WSP 1281: 1912, 1932(M), 1934, 1945-47, 1949-50. WSP 1311: 1931(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 3,668.1 ft (1,118.04 m) National Geodetic Vertical Datum of 1929. See WSP 1311 or 1731 for history of changes prior to Oct. 1, 1934.

REMARKS.--Records fair. Flow regulated by Conchas Lake, 45 mi (72 km) upstream (station 07223500) and Ute Reservoir, 2 mi (3 km) upstream (station 07226800). Diversions for irrigation of about 90,000 acres (360 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years (water years 1909, 1912-13, 1927-38), 392 ft^3/s (11.10 m^3/s), 284,000 acre-ft/yr (350 hm^3/yr), prior to completion of Conchas Dam; 24 years (water years 1939-62), 257 ft^3/s (7.278 m^3/s), 186,200 acre-ft/yr (230 hm^3/yr), prior to completion of Ute Dam; 17 years (water years 1963-79), 29.6 ft^3/s (0.838 m^3/s), 21,450 acre-ft/yr (26.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1925).--Maximum discharge, 219,000 ft^3/s (6,200 m^3/s) Sept. 22, 1941, gage height, 29.3 ft (8.93 m) from floodmarks, from rating curve extended above 75,000 ft^3/s (2,100 m^3/s); no flow at times prior to completion of Ute Dam.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge, 278,000 ft^3/s (7,870 m^3/s) Sept. 30, 1904, gage height, about 36.5 ft (11.13 m), site and datum used in 1909, from rating curve extended above 14,000 ft^3/s (400 m^3/s), from Ninth Biennial Report of State Engineer.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,230 ft^3/s (34.8 m^3/s) Aug. 28, gage height, 5.24 ft (1.597 m); minimum, 0.42 ft^3/s (0.012 m^3/s) Dec. 30, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	1.7	1.7	1.0	2.0	2.1	2.0	2.2	3.0	1.9	5.0	51
2	1.7	1.8	1.8	1.0	2.0	2.1	2.1	2.1	2.0	2.0	2.5	30
3	1.6	4.2	1.8	1.5	2.0	2.0	2.4	2.4	1.9	2.0	2.1	14
4	1.6	2.9	2.0	1.3	2.1	2.2	2.0	2.2	2.0	2.1	2.0	10
5	1.6	2.0	1.9	1.1	2.2	2.1	2.2	1.9	2.2	2.0	2.0	5.7
6	1.5	1.8	1.8	1.0	2.2	2.2	1.8	1.8	2.1	2.1	2.0	4.6
7	1.5	1.6	1.6	1.0	2.2	2.2	2.0	1.7	2.0	2.4	2.0	48
8	1.6	1.5	1.5	1.2	2.1	2.4	2.1	1.6	2.0	2.0	2.0	459
9	1.3	1.5	1.4	1.3	2.1	2.2	2.4	1.8	2.4	2.0	2.1	173
10	1.4	1.4	1.8	1.2	1.9	2.3	2.4	1.8	2.0	2.1	2.5	64
11	1.4	1.9	2.0	1.5	2.0	2.5	2.3	1.8	2.0	1.9	2.7	22
12	1.2	1.6	2.5	2.0	1.9	2.3	2.2	1.7	2.1	1.9	2.6	9.6
13	1.3	1.4	2.4	1.5	2.0	2.2	2.2	1.7	2.0	1.9	2.7	2.6
14	1.0	1.3	2.3	1.8	1.9	2.3	2.1	1.7	2.3	1.8	3.1	2.2
15	1.0	1.5	2.3	2.0	1.8	2.4	2.0	1.7	1.8	1.9	6.2	1.8
16	1.2	1.5	2.2	2.2	1.8	2.5	1.9	1.7	2.0	2.1	5.6	1.8
17	1.1	1.4	2.1	2.1	2.0	2.5	2.7	1.7	2.0	2.4	3.4	2.2
18	1.1	1.3	2.2	2.6	2.0	2.2	2.4	1.8	2.0	2.1	6.5	1.7
19	1.1	1.3	2.2	2.2	2.0	2.5	1.9	1.6	1.9	3.0	16	1.6
20	1.2	1.3	2.2	2.1	2.0	2.0	1.8	2.0	1.7	2.7	6.3	1.6
21	1.4	1.2	2.1	2.1	2.1	3.3	2.0	2.0	1.8	2.1	4.8	1.7
22	1.4	1.2	2.0	2.1	2.0	2.0	2.0	1.8	1.8	2.0	3.3	2.2
23	1.4	1.1	2.0	2.4	2.0	2.0	2.0	1.9	2.0	2.1	3.1	1.6
24	1.6	1.5	2.1	2.3	2.0	2.1	2.0	2.0	2.0	2.0	3.6	1.5
25	1.5	1.5	1.8	2.1	2.0	2.1	2.1	2.0	2.1	2.3	4.1	1.6
26	1.5	1.2	1.8	2.3	2.1	2.0	2.2	2.0	2.1	5.1	4.5	1.7
27	1.5	1.2	1.7	2.2	2.2	2.1	2.2	2.0	1.9	323	267	1.8
28	1.7	1.4	1.7	2.1	2.1	2.1	2.2	2.0	1.8	327	968	1.7
29	1.6	1.4	1.6	2.0	---	2.0	2.2	1.9	1.9	324	426	1.7
30	1.5	1.5	1.5	1.8	---	1.8	2.3	1.8	2.0	320	209	1.7
31	1.5	---	1.2	2.0	---	1.9	---	3.6	---	182	114	---
TOTAL	43.8	48.1	59.2	55.0	56.7	68.6	64.1	59.9	60.8	1533.9	2086.7	923.6
MEAN	1.41	1.60	1.91	1.77	2.03	2.21	2.14	1.93	2.03	49.5	67.3	30.8
MAX	1.8	4.2	2.5	2.6	2.2	3.3	2.7	3.6	3.0	327	968	459
MIN	1.0	1.1	1.2	1.0	1.8	1.8	1.8	1.6	1.7	1.8	2.0	1.5
AC-FT	87	95	117	109	112	136	127	119	121	3040	4140	1830

CAL YR 1978 TOTAL 809.2 MEAN 2.22 MAX 13 MIN 1.0 AC-FT 1610
WTR YR 1979 TOTAL 5060.4 MEAN 13.9 MAX 968 MIN 1.0 AC-FT 10040

07227100 REVUELTO CREEK NEAR LOGAN, NM

LOCATION.--Lat 35°20'28", long 103°23'40", in SW¼NW¼ sec.24, T.13 N., R.33 E., Quay County, Hydrologic Unit 11080008, on right bank 0.3 mi (0.5 km) upstream from bridge on State Highway 39, 1.9 mi (3.1 km) southeast of Logan, and at mile 2.3 (3.7 km).

DRAINAGE AREA.--786 mi² (2,036 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1959 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,665 ft (1,117 m), from topographic map.

REMARKS.--Water-discharge records poor. Low flows supplemented by surface and ground water return from irrigation in vicinity of Tucumcari.

AVERAGE DISCHARGE.--20 years, 45.6 ft³/s (1.291 m³/s), 33,040 acre-ft/yr (40.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,700 ft³/s (756 m³/s) July 9, 1960, gage height, 14.3 ft (4.36 m); no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD (1941-47).--Maximum discharge determined, about 13,400 ft³/s (379 m³/s) Sept. 18, 1946, gage height, 9.04 ft (2.755 m), at site 500 ft (150 m) downstream at different datum, from unpublished records collected by Bureau of Reclamation. A peak of 26,100 ft³/s (739 m³/s), date unknown, gage height, 12.9 ft (3.93 m), was measured by slope-area method in May 1957.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,460 ft ³/s (98.0 m³/s) July 23, gage height, 5.69 ft (1.734 m), no peak above base of 3,500 ft ³/s (99 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	1.1	.00	.00	.60	.00	.00	11	20	.00	29	16
2	.00	1.1	.00	.00	.70	.00	.11	2.8	5.0	.00	26	14
3	.00	17	.00	.05	.80	.00	.65	.24	2.0	.00	978	13
4	.00	318	.00	.00	.80	.00	.13	.00	1.0	.00	63	12
5	.00	68	.00	.00	.70	.00	.00	.00	15	66	18	8.8
6	.00	14	.00	.00	.90	.00	.02	.00	14	67	8.5	7.5
7	.00	5.8	.00	.00	.93	.00	.00	.00	13	132	6.0	10
8	.00	1.7	.00	.25	.76	.00	.00	.00	12	77	4.1	227
9	.05	.37	.00	.50	.62	.00	.50	.00	11	16	1.4	115
10	.01	.04	.00	.40	.68	.00	.74	.00	10	6.8	2.0	44
11	.36	.95	.10	.60	.74	.00	.20	.00	6.5	.92	1.0	15
12	.31	26	.20	1.0	.63	.00	.33	.00	1.8	.00	1.1	7.8
13	.00	6.5	.17	.50	.57	.00	.13	.00	.15	.00	2.9	7.2
14	.00	.98	.15	.60	.32	.00	.08	.00	.00	.00	5.7	8.2
15	.12	1.6	.05	.80	.14	.00	.04	.00	.00	5.7	36	42
16	.34	1.3	.01	1.0	.43	.00	.05	.00	.00	9.6	44	24
17	.40	6.0	.00	.89	.48	.00	1.2	.00	.00	16	52	14
18	.04	2.1	.00	1.1	.34	.00	1.7	.00	.00	12	35	9.3
19	.00	.18	.00	1.0	.24	.00	.41	.00	.00	20	18	37
20	.11	.00	.00	.80	.16	.05	.00	.23	.00	36	10	24
21	.73	.00	.00	.60	.22	.72	.09	158	.00	14	5.0	11
22	.96	.00	.00	.48	.12	.16	.11	95	.00	7.1	3.1	9.3
23	.81	.00	.00	.50	.05	.00	.06	34	.00	1450	2.0	8.9
24	.89	.05	.00	.60	.08	.00	.00	100	.17	116	1.7	8.3
25	.89	21	.00	.69	.08	.00	.00	17	.93	37	2.3	8.2
26	1.0	4.8	.00	.70	.00	.00	.00	4.0	.00	620	30	6.9
27	.89	.27	.06	.70	.05	.02	.00	3.0	.00	173	992	6.0
28	.89	.00	.02	.60	.05	.00	.11	2.9	.00	31	385	6.1
29	.89	.00	.00	.50	---	.00	.32	2.6	.00	7.2	53	6.5
30	.89	.00	.00	.50	---	.00	19	1.3	.00	39	24	6.5
31	.89	---	.00	.50	---	.00	---	50	---	4.8	19	---
TOTAL	11.57	498.84	.76	15.86	12.19	.95	25.98	482.07	112.55	2964.12	2858.8	733.5
MEAN	.37	16.6	.025	.51	.44	.031	.87	15.6	3.75	95.6	92.2	24.5
MAX	1.0	318	.20	1.1	.93	.72	19	158	20	1450	992	227
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.0	6.0
AC-FT	23	989	1.5	31	24	1.9	52	956	223	5880	5670	1450

CAL YR 1978 TOTAL 9062.97 MEAN 24.8 MAX 1970 MIN .00 AC-FT 17980
WTR YR 1979 TOTAL 7717.19 MEAN 21.1 MAX 1450 MIN .00 AC-FT 15310

ARKANSAS RIVER BASIN

07227100 REVUELTO CREEK NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1973 TO SEPTEMBER 1974

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)
[illegible]	1400	.80	6100	8.0	21.0	21.0	8.8	250
[illegible]	1130	.20	2000	8.4	15.5	9.0	--	220
[illegible]	0900	.17	6110	8.2	--	1.0	--	--
[illegible]	1030	.05	6000	8.0	11.0	11.5	11.3	250
[illegible]	1030	.50	2000	8.1	.0	1.0	--	190
[illegible]	1200	.05	5000	8.3	16.0	15.5	--	300
[illegible]	1515	.05	5000	8.3	--	11.0	--	--
[illegible]	1045	.60	5500	8.3	17.5	11.0	8.9	250
[illegible]	1315	.02	1400	8.0	17.0	20.5	8.1	100
[illegible]	1015	.70	800	8.4	11.0	20.0	8.8	110
[illegible]	1010	40	887	8.5	--	20.0	--	--
[illegible]	1100	30	208	8.4	20.0	18.0	7.2	13
[illegible]	1030	38	375	8.3	20.0	21.0	7.7	103

DATE	NONCAR-BONATE HARDNESS (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
[illegible]	--	58	11	1200	30	7.7	340	310	1800
[illegible]	0	48	27	400	14	4.6	270	200	510
[illegible]	--	--	--	--	--	--	--	--	--
[illegible]	27	80	40	830	22	6.0	300	280	1200
[illegible]	0	61	22	300	8.8	3.2	300	260	330
[illegible]	0	56	48	1000	20	7.6	300	110	1400
[illegible]	--	--	--	--	--	--	--	--	--
[illegible]	0	58	50	1100	23	5.6	300	320	730
[illegible]	0	33	18	250	6.6	3.3	310	230	170
[illegible]	0	56	6.6	110	6.2	3.8	170	100	63
[illegible]	--	--	--	--	--	--	--	--	--
[illegible]	0	3.8	1.0	72	6.0	3.0	87	72	13
[illegible]	0	28	6.6	67	6.0	3.0	120	104	25

07227100 REVUELTO CREEK NEAR LOGAN, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
OCT								
31...	.9	11	--	[illegible]	.04	--	--	--
NOV								
29...	.5	9.0	--	1330	.63	--	--	--
DEC								
13...	--	--	--	--	--	--	--	--
19...	.7	9.4	--	2720	.02	--	--	--
JAN								
30...	.6	6.6	--	1680	.61	--	--	--
FEB								
28...	.9	8.0	--	2060	.06	--	--	--
28...	--	--	--	--	--	--	--	--
APR								
19...	1.0	6.6	--	3170	.06	--	--	--
JUN								
13...	.6	9.0	--	332	.40	--	--	--
JUL								
11...	.6	11	--	552	.77	--	--	--
27...	--	--	--	--	--	--	--	--
AUG								
15...	.6	8.0	--	232	.68	--	--	--
SEP								
20...	.5	6.6	340	[illegible]	.21	.02	170	14

MISCELLANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT, DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)
NOV												
29...	[illegible]	[illegible]	8.0	[illegible]	[illegible]	--	--	--	--	--	--	--
DEC												
13...	[illegible]	[illegible]	1.0	[illegible]	[illegible]	--	--	--	--	--	--	--
19...	[illegible]	[illegible]	11.0	[illegible]	[illegible]	--	--	--	--	--	--	--
JAN												
30...	[illegible]	[illegible]	1.0	[illegible]	[illegible]	--	--	--	--	--	--	--
FEB												
28...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	--	--	--	--	--	--	--
APR												
19...	[illegible]	[illegible]	[illegible]	76	[illegible]	--	--	--	--	--	--	--
JUN												
13...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	--	--	--	--	--	--	--
JUL												
11...	[illegible]	[illegible]	[illegible]	[illegible]	1.1	--	--	--	--	--	--	--
27...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	--	--	--	--	--	--	--
AUG												
15...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	--	[illegible]	[illegible]	100
SEP												
20...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	100	--	--	--

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM
(National stream-quality accounting network station)

LOCATION.--Lat 35°22'35", long 103°02'30", in SW¼ sec.32, T.14 N., R.37 E., Quay County, Hydrologic Unit 11080006, 0.1 mi (0.2 km) upstream from New Mexico-Texas State line, 5.5 mi (8.8 km) downstream from Nara Canyon, and 14.7 mi (23.7 km) north of Glenrio.

DRAINAGE AREA.--12,616 mi^2 (32,675 km^2).

PERIOD OF RECORD.--Water years 1969-73, 1975 to current year.

REMARKS.--Water-discharge measurements were made at the time water-quality samples were collected.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
NOV												
01...	0940	1.2	8100	8.3	16.0	12.0	1.9	10.9	270	600	390	110
29...	0930	11	6650	8.5	11.5	5.5	330	--	61	500	250	100
DEC												
[illegible]...	1000	9.1	10000	8.3	8.5	9.0	96	11.0	51	670	470	140
JAN												
[illegible]...	1000	6.3	8100	8.2	3.5	1.0	26	--	130	630	380	140
FEB												
[illegible]...	1030	8.5	10500	8.3	13.0	7.0	5.4	11.8	63	680	420	140
MAR												
[illegible]...	1015	8.6	9300	8.3	15.0	11.0	19	10.6	90	620	390	130
MAY												
[illegible]...	0900	2.5	9900	8.2	17.5	16.0	1.8	9.7	37	[illegible]	[illegible]	120
JUN												
[illegible]...	1015	21	3240	8.6	33.5	23.0	560	8.2	14	290	91	79
JUL												
[illegible]...	0910	12	1800	8.2	30.5	23.5	7600	7.7	80	160	0	44
AUG												
[illegible]...	1315	20	6300	8.1	36.5	28.0	110	7.2	20	460	250	74
SEP												
[illegible]...	0800	33	5440	8.6	21.5	17.0	180	8.8	33	310	200	65

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM AD-SORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITRATE, DISSOLVED (MG/L AS N) (00618)
NOV												
01...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
DEC												
[illegible]...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JAN												
[illegible]...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
FEB												
[illegible]...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAR												
[illegible]...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
MAY												
[illegible]...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUN												
[illegible]...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
JUL												
[illegible]...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
AUG												
[illegible]...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
SEP												
[illegible]...	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM - Continued

CHEMICAL ANALYSIS, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
NOV												
01...	.09	.01	1.5	1.6	.010	—	410	20	—	1.7	1.8	.4
29...	1.1	.06	.09	1.3	.260	.00	390	10	—	1.7	1.6	.3
DEC												
[illegible]...	.44	.01	.14	.55	.050	.01	380	100	60	—	1.4	1.1
JAN												
[illegible]...	.54	.07	.25	.83	.050	.00	370	10	—	1.6	1.9	.6
FEB												
[illegible]...	.40	.04	.15	.59	.030	.00	380	10	—	1.2	2.0	1.1
APR												
[illegible]...	.05	.04	.11	.20	.010	.02	380	10	90	—	2.9	4.0
MAY												
[illegible]...	.01	.06	.16	.23	.080	.01	400	450	—	1.5	4.8	2.0
JUN												
13...	.63	.03	.63	1.3	.400	.00	0	20	0	—	3.4	.4
JUL												
[illegible]...	.80	.12	1.2	2.3	.200	.00	210	0	—	21	4.1	1.0
AUG												
15...	.17	.07	.47	.60	.100	.05	340	10	—	5.6	4.9	.8
SEP												
[illegible]...	.05	.04	.05	.94	.300	—	300	30	0	—	4.5	2.1

TRACE ELEMENT ANALYSIS, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
[illegible]										
[illegible]...	1000	2	2	100	100	200	1	2	20	0
[illegible]										
[illegible]...	1015	6	6	100	100	300	0	0	10	10
[illegible]										
[illegible]...	1015	0	0	600	600	0	0	1	20	0
[illegible]										
[illegible]...	0955	3	2	300	300	300	0	1	0	10

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
[illegible]									
[illegible]...	0	0	0	1	[illegible]	100	3	1	[illegible]
[illegible]									
[illegible]...	0	0	17	0	[illegible]	10	12	0	[illegible]
[illegible]									
[illegible]...	0	0	[illegible]	1	—	20	[illegible]	0	[illegible]
[illegible]									
[illegible]...	0	0	0	1	[illegible]	[illegible]	3	0	[illegible]

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM - Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
DEC 20...	40	.0	.1	0	1	0	0	30	50
APR 11...	90	.1	.2	1	1	0	0	50	20
JUN 13...	0	1.4	2.6	2	1	0	0	170	20
SEP 20...	0	.2	.1	1	1	0	0	10	10

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV 01...	0940	51	50
29...	0950	150	2000
DEC 20...	1000	1	30
JAN 31...	1000	0	9
FEB 28...	1000	0	6
APR 11...	1015	6	29
MAY 09...	0900	15	73
JUN 13...	1015	800	360
JUL 11...	0915	2200	1700
AUG 29...	1525	250	350
SEP 20...	0855	63	310

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM

QUALITATIVE AND ASSOCIATED QUANTITATIVE NALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 29,78	APR 11,79	MAY 9,79	JUN 13,79	AUG 15,79	SEP 20,79
TIME	0950	1015	0900	1015	1515	0855
TOTAL CELLS/ML	170	850	790	1400	87000	11000
DIVERSITY: DIVISION	0.0	0.0	0.1	0.7	0.3	0.7
.CLASS	0.0	0.0	0.1	0.7	0.3	0.7
..ORDER	0.0	0.0	0.1	0.7	0.4	0.7
...FAMILY	0.0	0.9	0.1	0.7	1.3	1.1
....GENUS	0.0	1.5	0.1	0.7	1.6	1.5

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...CHLOROCOCCACEAE												
....CHLOROCOCCUM	--	-	--	-	--	-	--	-	--	-	210	2
...COELASTRACEAE												
....COELASTRUM	--	-	--	-	--	-	--	-	--	-	180	2
...HYDRODICTYACEAE												
....PEDIASTRUM	--	-	--	-	--	-	--	-	--	-	1200	11
...MICRACTINIACEAE												
....GOLENKINIA	--	-	--	-	--	-	--	-	*	0	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	--	-	--	-	*	0	*	0
....CHLORELLA	--	-	--	-	--	-	--	-	--	-	*	0
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	*	0	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	*	0	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-	670	1	--	-
....[illegible]	--	-	--	-	--	-	--	-	*	0	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	--	-	--	-	--	-	--	-	*	0	380	3
..VOLVOCALES												
...CHLAMYDOMONADACEAE	170	100	--	-	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	*	0	--	-
...VOLVOCACEAE												
....[illegible]	--	-	--	-	--	-	--	-	1700	2	--	-
[illegible]												
.[illegible]												
..[illegible]												
...[illegible]												
....[illegible]	--	-	70	8	--	-	--	-	--	-	--	-
....[illegible]	--	-	16	2	--	-	--	-	--	-	--	-
....[illegible]	--	-	[illegible]	[illegible]	[illegible]	[illegible]	--	-	--	-	*	0
...[illegible]												
....[illegible]	--	-	16	[illegible]	--	-	--	-	--	-	--	-
....[illegible]	--	-	[illegible]	[illegible]	--	-	[illegible]	17	*	0	*	0
...[illegible]												
....[illegible]	--	-	16	2	--	-	--	-	--	-	--	-
[illegible]												
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..[illegible]												
...[illegible]												
....[illegible]	--	-	--	-	--	-	--	-	*	0	--	-
..[illegible]												
...[illegible]												
....[illegible]	--	-	--	-	--	-	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
....[illegible]	--	-	--	-	--	-	--	-	[illegible]	[illegible]	[illegible]	[illegible]
...[illegible]												
....[illegible]	--	-	--	-	[illegible]	[illegible]	--	-	[illegible]	[illegible]	--	-
[illegible]												
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....[illegible]	--	-	--	-	--	-	--	-	*	0	--	-

NOTE: [illegible]

07227140 CANADIAN RIVER ABOVE NEW MEXICO-TEXAS STATE LINE, NM - Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PERIPHYTON

DATE	TIME	LENGTH OF EXPO-SURE (DAYS) (00022)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	SAMPLING METHOD
NOV								
01...	0940	36	39.3	38.4	.060	.000	—	Polyethylene strip
29...	0950	28	1.81	1.57	.180	.000	—	"
DEC								
20...	1000	22	4.65	4.33	.000	.000	—	"
FEB								
28...	1000	29	14.7	14.4	.100	.000	—	"
AUG								
15...	1515	35	4.57	4.09	.110	.000	4364	"
SEP								
20...	0815	36	3.62	3.54	.290	.000	276	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
01...	0940	5.2	12.0	41	.58	72
29...	0950	11	5.5	425	13	94
DEC						
20...	1000	9.1	5.0	76	1.9	93
JAN						
31...	1000	8.3	1.0	78	1.7	63
FEB						
28...	1000	8.2	7.0	21	.46	92
APR						
11...	1015	9.6	13.0	40	1.0	71
MAY						
09...	0900	2.5	16.0	7	.05	28
JUN						
11...	0915	21	23.0	567	33	98
JUL						
11...	0912	13	25.5	9460	332	100
AUG						
15...	1515	20	28.0	206	11	88
SEP						
20...	0815	13	17.0	311	11	96

RIO GRANDE BASIN

08251500 RIO GRANDE NEAR LOBATOS, CO

LOCATION.--Lat 37°04'42", long 105°45'22", in sec.22, T.33 N., R.11 E., Conejos County, Hydrologic Unit 13010002, on right bank at highway bridge, 6 mi (10 km) north of Colorado-New Mexico State line, 7 mi (11 km) downstream from Culebra Creek, 10 mi (16 km) east of Lobatos, 14 mi (23 km) east of Antonito and at mile 1,722.1 (2,770.9 km).

DRAINAGE AREA.--7,700 mi² (19,900 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in northern part of San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1899 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "at Cenicero" 1899-1901, and as "near Cenicero" 1902-04.

REVISED RECORDS.--WSP 210: Drainage area. WSP 1312: 1919 (monthly runoff).

GAGE.--Water-stage recorder. Datum of gage is 7,427.63 ft (2,263.942 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 8, 1910, nonrecording gages at same site and datum.

REMARKS.--Water-discharge records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--31 years (water years 1900-30), 846 ft³/s (23.96 m³/s), 612,900 acre-ft/yr (756 hm³/yr), includes period of extensive development for irrigation; 49 years (water years 1931-79), 412 ft³/s (11.67 m³/s), 298,500 acre-ft/yr (368 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,200 ft³/s (374 m³/s) June 8, 1905, gage height, 9.1 ft (2.77 m), from rating curve extended above 8,000 ft³/s (230 m³/s); no flow at times in 1950-51, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since at least 1828, that of June 8, 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,830 ft³/s (137 m³/s) June 10, gage height, 5.61 ft (1.710 m); minimum daily, 41 ft³/s (1.16 m³/s) Sept. 28-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	250	195	175	190	250	496	1320	4110	2960	1020	192
2	92	234	205	155	190	255	470	1300	4040	2810	925	178
3	90	246	160	155	185	260	435	1440	3740	2620	840	164
4	88	254	175	160	180	255	420	1730	3370	2840	760	151
5	90	254	210	160	180	250	395	1650	3360	2600	685	136
6	92	276	160	160	180	260	305	1720	3420	2630	643	125
7	100	270	80	160	185	280	390	1970	3400	2660	601	112
8	95	270	70	155	190	330	405	2100	3630	2610	567	98
9	95	250	90	155	190	305	455	2000	4110	2530	567	82
10	92	260	130	155	190	310	550	1790	4690	2590	587	73
11	90	260	140	155	190	330	596	1380	4500	2520	692	65
12	88	250	125	160	190	340	580	1230	3990	2220	665	56
13	90	250	165	155	190	360	564	1050	3420	2100	657	53
14	92	270	160	155	190	370	606	952	3260	1910	664	51
15	100	260	170	160	190	390	666	908	3560	1690	776	53
16	130	270	165	165	185	610	580	1300	3990	1520	752	53
17	254	250	165	170	185	630	657	1700	4200	1600	868	50
18	232	250	175	175	200	650	696	1660	4190	1910	926	66
19	205	250	180	170	205	660	1070	1670	2770	1930	809	66
20	625	230	165	175	195	660	1260	1900	2280	2010	728	62
21	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
22	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
23	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
24	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
25	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
26	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
27	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
28	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
29	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
30	[illegible]	[illegible]	[illegible]	[illegible]	---	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
31	[illegible]	---	[illegible]	[illegible]	---	[illegible]	---	[illegible]	---	[illegible]	[illegible]	---
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
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[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

[illegible]

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1975 to current year.
WATER TEMPERATURE: October 1975 to current year.

INSTRUMENTATION.--Water-quality monitor since October 1975.

REMARKS.--Replaces station 08249200 Rio Grande above Culebra Creek, near Lobatos, Colo. which was discontinued July 1969. This station operated by the Colorado District.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,140 micromhos Sept. 18, 1977; minimum daily, 84 micromhos May 9, 1979.
WATER TEMPERATURES: Maximum, 30.0°C July 17, 1977; minimum, freezing point on many days during winter period.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 539 micromhos Sept. 23; minimum daily, 84 micromhos May 9.
WATER TEMPERATURES: Maximum, 28.0°C Sept. 9; minimum, freezing point on many days during winter months.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT											
12...	1145	93	245	8.0	15.0	1.6	9.6	83	0	26	4.3
NOV											
07...	1300	370	260	6.8	9.5	3.1	10.0	70	2	22	3.6
DEC											
19...	1300	150	218	7.5	.5	1.5	11.0	74	3	23	4.1
JAN											
18...	1300	160	210	7.1	.5	2.2	10.0	64	0	20	3.5
FEB											
20...	1300	150	200	6.8	.5	3.9	--	66	0	21	3.4
MAR											
29...	1330	526	240	7.4	8.0	9.9	8.4	75	2	23	4.3
APR											
19...	1300	1200	190	6.7	12.0	2.0	7.6	54	6	16	3.3
MAY											
17...	1530	1050	115	7.4	14.5	35	7.5	38	7	13	1.3
JUN											
14...	1400	3200	200	7.6	21.0	15	6.5	67	21	20	4.1
JUL											
19...	1330	1910	100	7.0	21.0	13	7.5	34	0	10	2.1
AUG											
23...	1300	615	135	6.9	22.0	10	8.5	46	3	14	2.7
23...	1415	615	135	6.9	22.0	--	8.5	--	--	--	--
SEP											
26...	1415	64	400	8.0	18.5	1.7	--	130	16	44	8.8

DATE	SODIUM DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT											
12...	18	.9	6.0	88	28	--	.3	22	165	--	.00
NOV											
07...	16	.7	3.3	68	20	3.3	.2	25	166	160	.01
DEC											
19...	13	.7	3.6	71	27	3.2	.3	32	155	149	.25
JAN											
18...	11	.6	3.1	64	22	3.0	.2	31	168	132	.32
FEB											
20...	11	.6	2.9	68	21	3.9	.2	30	137	133	.56
MAR											
29...	18	1.0	3.8	75	36	5.5	.8	27	176	162	.33
APR											
19...	10	.6	0.6	48	23	2.8	.2	28	113	111	.20
MAY											
17...	7.5	.5	2.1	32	13	0.7	.2	28	89	80	.05
JUN											
14...	13	.7	3.3	58	30	5.6	.2	28	170	133	.22
JUL											
19...	6.3	.5	1.8	35	11	1.2	.1	20	77	71	.03
AUG											
23...	6.5	.4	2.1	43	14	1.8	.3	23	88	84	.01
23...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	41	1.5	3.8	130	51	18	.3	25	320	300	.33

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 12...	--	.01	.48	.49	.080	--	--	2.7	--	--	--
NOV 07...	--	.00	.57	.58	.070	40	10	--	2.8	.6	.00
DEC 19...	--	.03	.19	.47	.090	--	--	2.2	--	--	--
JAN 18...	--	.02	.13	.47	.090	--	--	1.9	--	--	--
FEB 20...	--	.19	.30	1.0	.140	10	20	--	1.5	--	.00
MAR 29...	--	.06	.51	.80	.110	--	--	5.4	--	--	--
APR 19...	--	.03	.84	1.1	.270	--	--	14	--	--	--
MAY 17...	--	.01	.63	.69	.130	80	40	--	5.6	--	.00
JUN 14...	--	.08	.32	.41	.170	--	--	9.2	--	--	--
JUL 19...	--	.02	.46	.49	.130	--	--	4.4	--	--	--
AUG 23...	.01	.01	.26	.28	.140	30	20	--	3.8	1.1	--
23...	--	--	--	--	--	--	--	--	--	--	--
SEP 26...	.01	.01	.49	.55	.100	--	--	6.4	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)
NOV 07...	1300	2	2	0	0	7	4	0	0	1
FEB 20...	1300	2	2	0	0	1	1	10	10	0
MAY 17...	1530	--	1	0	0	1	0	10	0	1
AUG 23...	1300	--	1	0	30	0	2	10	0	0

DATE	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV 07...	1	3	3	920	40	65	35	100	10
FEB 20...	0	5	1	310	10	6	1	70	20
MAY 17...	1	12	16	1000	80	0	0	210	40
AUG 23...	<1	2	2	1100	30	5	6	110	20

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV									
07...	.0	.0	0	0	0	0	0	20	10
FEB									
20...	.0	.0	1	0	0	0	0	40	20
MAY									
17...	--	.0	0	--	0	0	0	40	50
AUG									
23...	--	.0	,10	--	0	0	0	10	3

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
OCT										
12..	1145	,1.9	,.4	3.5	.5	3.3	.5	.06	1.0	--
JUN										
14..	1400	,1.5	1.2	4.0	1.2	3.7	1.2	.04	.6	--
SEP										
26..	1415	12	,.4	8.2	.7	7.5	.7	.05	--	2.5

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL (UG/L) (39350)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39368)
NOV											
07...	1300	ND	--	ND	--	ND	--	ND	--	ND	--
FEB											
20...	1300	ND	--	ND	--	ND	--	ND	--	ND	--
MAY											
17...	1530	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG											
23...	1415	--	--	ND	--	ND	--	ND	--	ND	--

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39373)	DI-AZINON, TOTAL (UG/L) (39570)	DI-AZINON, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39571)	DI-ELDRIN TOTAL (UG/L) (39380)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39383)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39399)
NOV										
07..	ND	--	ND	--	ND	--	ND	--	ND	--
FEB										
20..	ND	--	ND	--	ND	--	ND	--	ND	--
MAY										
17..	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
23..	ND	--	ND	--	ND	--	ND	--	ND	--

ND Material specifically tested for but not detected

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	MALA-THION, TOTAL (UG/L) (39530)	MALA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39531)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)
NOV										
07...	ND	--	ND	--	ND	--	ND	--	ND	--
FEB										
20...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY										
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
23...	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL TRI-THION, TOTAL (UG/L) (39790)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARA-THION, TOTAL (UG/L) (39540)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39541)	TOX-APHENE, TOTAL (UG/L) (39400)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39787)
NOV										
07...	ND	--	ND	--	ND	--	ND	--	ND	--
FEB										
20...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY										
17...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
23...	ND	--	ND	--	ND	--	ND	--	ND	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
FEB		
20...	1300	K27
MAR		
29...	1330	K2

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
PHYTOPLANKTON

DATE	OCT 12,78	NOV 7,78	MAR 29,79	MAY 17,79	JUN 14,79
TIME	1145	1300	1330	1530	1400
TOTAL CELLS/ML	3700	6500	4000	2000	1200
DIVERSITY: DIVISION	1.4	1.0	1.1	1.4	1.6
.CLASS	1.4	1.0	1.1	1.4	1.6
..ORDER	1.8	1.7	1.5	1.8	2.0
...FAMILY	2.7	3.3	1.7	2.4	2.6
....GENUS	2.8	3.7	1.8	2.4	2.6

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...CHARACIACEAE										
....SCHROEDERIA	--	-	38	1	--	-	--	-	--	-
...CHLOROCOCCACEAE										
....CHLOROCOCCUM	--	-	--	-	--	-	--	-	--	-
...COELASTRACEAE										
....COELASTRUM	--	-	--	-	--	-	--	-	210#	17
...HYDRODICTYACEAE										
....PEDIASTRUM	480	13	--	-	--	-	--	-	--	-
...MICRACTINIACEAE										
....GOLENKINIA	--	-	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	100	5	--	-
...OOCYSTACEAE										
....ANKISTRODESMUS	32	1	190	3	26	1	--	-	39	3
....CHODATELLA	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-
....GLOEOACTINIUM	--	-	450	7	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-	--	-
....OOCYSTIS	--	-	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	38	1	--	-	--	-	--	-
....TREUBARIA	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	1400#	37	380	6	--	-	51	3	52	4
....TETRASTRUM	32	1	--	-	--	-	--	-	--	-
..TETRASPORALES										
...COCCOMYXACEAE										
....ELAKATOTHRIX	--	-	--	-	--	-	--	-	26	2
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	130	3	260	4	150	4	--	-	26	2
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	--	-	--	-	--	-
....STAURASTRUM	*	0	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	790	12	2500#	63	270	13	39	3
....MELOSIRA	160	4	75	1	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	38	1	--	-	--	-	--	-
....COCCONEIS	--	-	110	2	64	2	--	-	--	-
....RHOICOSPHENIA	--	-	38	1	*	0	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	81	2	38	1	--	-	--	-	--	-
....EPITHEMIA	32	1	190	3	38	1	--	-	--	-
...DIATOMACEAE										
....DIATOMA	81	2	75	1	26	1	--	-	--	-
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	1300#	20	--	-	400#	20	140	12
....SYNEDRA	*	0	110	2	--	-	13	1	--	-
...GOMPHONEMATACEAE										
....GOMPHONEIS	--	-	75	1	--	-	--	-	--	-
....GOMPHONEMA	60	1	150	2	51	1	38	2	13	1
...NAVICULACEAE										
....NAVICULA	260	7	230	3	64	2	51	3	--	-
....PINNULARIA	--	-	38	1	--	-	--	-	--	-
....STAURONEIS	--	-	--	-	--	-	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	230	6	750	12	77	2	100	5	130	11
...SURIRELLACEAE										
....CYMATOPLEURA	--	-	--	-	*	0	--	-	--	-
....SURIRELLA	--	-	--	-	38	1	--	-	--	-
...TABELLARIACEAE										
....TABELLARIA	--	-	300	5	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM, EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
PHYTOPLANKTON

DATE	OCT 12,78		NOV 7,78		MAR 29,79		MAY 17,79		JUN 14,79	
TIME	1145		1300		1330		1530		1400	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE	--	-	--	-	--	-	--	-	--	-
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	--	-	110	2	--	-	--	-	--	-
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	13	1	13	1
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	840#	23	--	-	--	-	--	-	--	-
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	920#	23	--	-	--	-
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	880#	44	520#	43
....SCHIZOTHRIX	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	13	1	--	-
....EUTREPTIA	--	-	--	-	--	-	--	-	--	-
....PHACUS	--	-	38	1	--	-	--	-	--	-
....TRACHELOMONAS	--	-	150	2	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..GYMNODINIALES										
...GYMNODINIACEAE										
....GYMNODINIUM	--	-	--	-	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
PHYTOPLANKTON

DATE	JUL 19,79		AUG 23,79		AUG 23,79		SEP 26,79	
TIME	1330		1300		1415		1415	
TOTAL CELLS/ML	2100		3100		18000		11000	
DIVERSITY: DIVISION	1.5		0.7		1.1		1.8	
.CLASS	1.5		0.7		1.1		1.8	
..ORDER	1.8		0.0		1.9		2.1	
...FAMILY	2.6		0.0		2.7		2.4	
....GENUS	3.0		0.0		2.8		3.1	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...CHLOROCOCCACEAE								
....CHLOROCOCCUM	--	-	20	1	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	26	1	--	-	--	-	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	64	3	--	-	410	2	500	5
....CHODATELLA	--	-	--	-	--	-	130	1
....DICTYOSPHAERIUM	52	2	--	-	--	-	1000	10
....GLOEOACTINIUM	--	-	--	-	--	-	340	3
....KIRCHNERIELLA	--	-	--	-	--	-	270	2
....OOCYSTIS	--	-	--	-	--	-	*	0
....SELENASTRUM	--	-	--	-	--	-	*	0
....TREUBARIA	--	-	--	-	--	-	67	1
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	330	2	270	2
....SCENEDESMUS	210	10	40	1	990	5	340	3
....TETRASTRUM	52	2	--	-	--	-	270	2
..TETRASPORALES								
...COCCOMYXACEAE								
....ELAKATOTHRIX	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	*	0	240	2
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	20	1	--	-	--	-
....STAURASTRUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	39	2	20	1	4300#	23	2000#	18
....MELOSIRA	39	2	--	-	--	-	--	-
....STEPHANODISCUS	64	3	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....COCCONEIS	39	2	--	-	330	2	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	30	1	250	1	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	--	-	--	-	*	0	--	-
...FRAGILARIACEAE								
....ASTERIONELLA	52	2	--	-	--	-	--	-
....FRAGILARIA	890#	42	--	-	6800#	37	740	7
....SYNEDRA	13	1	--	-	160	1	--	-
...GOMPHONEMATACEAE								
....GOMPHONEIS	--	-	--	-	--	-	--	-
....GOMPHONEMA	--	-	--	-	820	5	--	-
...NAVICULACEAE								
....NAVICULA	13	1	50	2	490	3	--	-
....PINNULARIA	--	-	--	-	--	-	--	-
....STAURONEIS	--	-	140	4	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	210	10	100	3	330	2	100	1
...SURIRELLACEAE								
....CYMATOPLEURA	--	-	--	-	--	-	--	-
....SURIRELLA	--	-	*	0	--	-	--	-
...TABELLARIACEAE								
....TABELLARIA	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON

DATE TIME	JUL 19,79 1330		AUG 23,79 1300		AUG 23,79 1415		SEP 26,79 1415	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE	--	-	*	0	--	-	--	-
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	13	1	--	-	--	-	100	1
...CRYPTOMONADACEAE								
....CRYPTOMONAS	52	2	--	-	--	-	67	1
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	270	13	--	-	2000	11	4200#	38
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	2600#	86	--	-	--	-
....SCHIZOTHRIX	--	-	--	-	820	5	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	13	1	--	-	--	-	--	-
....EUTREPTIA	--	-	--	-	*	0	--	-
....PHACUS	--	-	--	-	--	-	--	-
....TRACHELOMONAS	26	1	--	-	--	-	240	2
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PERIPHYTON

DATE	TIME	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	SAMPLING METHOD
NOV 07...	1300	20.0	17.6	18.4	.290	--	Polyethylene strip
APR 19...	1300	5.20	4.72	4.02	.000	119	"
MAY 17...	1530	.160	.080	.110	.000	727	"
SEP 26...	1415	4.17	3.62	.820	.070	671	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 12...	1130	93	--	19	48	78
NOV 07...	1200	370	--	16	16	81
DEC 19...	1245	150	--	5	2.0	60
JAN 18...	1300	160	.5	8	3.5	50
MAR 29...	1400	526	--	83	118	69
APR 19...	1500	1200	--	188	609	69
MAY 17...	1500	1850	--	1570	7840	5
JUN 14...	1315	3280	--	719	6370	6
JUL 19...	1245	1910	--	106	547	32
AUG 23...	1400	615	--	40	66	--
SEP 26...	1545	45	--	202	25	53

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR, OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	278	220	230	215	195	204	265	228	251	183	181	182
2	235	226	231	227	215	221	260	245	256	183	181	182
3	238	233	236	238	226	231	254	245	251	184	182	183
4	236	228	234	238	234	236	250	234	243	185	182	184
5	242	229	234	242	234	238	241	221	232	185	183	184
6	241	236	238	241	233	236	251	229	241	185	183	184
7	240	234	237	244	236	238	263	236	245	186	183	184
8	245	234	239	230	225	227	260	240	250	187	184	185
9	247	241	244	234	228	231	264	251	256	187	185	186
10	251	240	245	241	233	239	253	249	250	188	185	186
11	251	245	247	247	240	245	266	252	260	188	186	187
12	241	237	239	258	231	249	267	264	266	187	186	186
13	249	240	244	236	230	231	265	260	263	188	187	187
14	289	251	270	236	222	228	260	243	252	189	187	187
15	291	266	278	239	225	229	242	228	234	189	187	188
16	286	262	278	241	225	234	228	222	224	189	188	188
17	298	212	258	239	215	226	222	220	221	190	188	189
18	211	189	198	238	216	226	222	219	220	195	193	194
19	188	178	183	238	214	224	216	213	213	200	196	198
20	177	175	176	244	223	230	208	204	206	198	196	198
21	176	172	174	248	230	238	209	203	206	198	196	197
22	175	168	170	251	230	241	209	202	205	198	196	198
23	168	166	167	249	232	240	209	204	206	198	197	198
24	165	162	163	233	216	226	210	205	207	200	197	198
25	166	160	163	240	214	223	210	205	207	203	200	201
26	173	166	170	234	209	220	208	204	206	202	199	201
27	181	173	178	239	216	226	208	203	206	199	197	198
28	181	178	180	227	215	219	209	204	206	199	196	197
29	185	179	182	234	211	220	206	198	203	199	198	198
30	190	184	188	239	210	229	202	195	199	198	196	197
31	195	189	191	---	---	---	198	180	184	200	196	198
MONTH	298	160	215	258	195	230	267	180	228	203	181	191

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	199	196	198	171	171	171	245	211	228	98	97	98
2	197	195	196	171	171	171	241	205	218	99	96	97
3	196	195	196	172	172	172	235	202	218	99	91	95
4	195	194	195	172	172	172	250	218	231	93	88	90
5	195	194	194	172	172	172	249	202	229	94	89	92
6	194	193	194	172	172	172	248	222	241	94	89	91
7	194	193	193	173	172	172	248	232	242	95	89	92
8	193	192	193	175	172	173	244	231	240	95	87	91
9	192	192	192	176	173	174	240	233	237	89	84	86
10	193	193	193	176	173	174	232	214	220	97	89	91
11	193	193	193	178	173	174	216	202	207	108	98	104
12	193	193	193	179	168	174	212	190	204	116	103	108
13	193	192	192	181	167	173	210	179	197	131	117	125
14	193	192	192	180	173	176	213	202	209	132	129	130
15	192	192	192	184	174	180	219	212	215	134	129	131
16	192	192	192	193	173	186	215	199	209	132	109	119
17	193	193	193	200	160	181	197	181	189	129	109	121
18	193	193	193	209	175	196	181	166	174	131	127	130
19	193	193	193	223	192	206	304	155	177	132	130	131
20	215	193	192	209	193	202	158	140	150	134	129	132
21	197	172	186	220	210	216	137	124	127	130	99	107
22	179	170	173	220	208	212	124	120	122	105	101	103
23	175	170	172	236	207	216	121	116	118	106	103	104
24	172	170	171	243	201	217	119	109	114	124	105	114
25	172	170	171	248	211	227	114	106	109	114	109	111
26	171	170	170	240	213	227	114	103	106	116	109	112
27	171	171	171	244	214	226	107	100	102	122	112	117
28	171	171	171	258	227	239	108	102	104	131	124	128
29	---	---	---	246	217	235	108	100	102	149	115	132
30	---	---	---	233	200	219	101	96	98	150	133	138
31	---	---	---	241	210	228	---	---	---	159	149	154
MONTH	215	170	188	258	160	195	304	96	178	159	84	112

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), RECORDER MAXIMUM, MINIMUM, AND MEAN,
WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	161	155	158	171	166	168	110	106	108	317	301	309
2	164	158	161	171	167	170	115	111	113	319	311	316
3	174	166	171	167	162	164	122	114	118	322	314	317
4	175	168	171	169	161	164	126	119	123	327	321	323
5	169	162	164	176	170	174	132	125	129	339	327	333
6	168	165	166	177	174	175	135	129	132	353	341	347
7	170	165	166	181	176	178	136	132	134	363	348	356
8	167	160	163	183	180	181	134	129	131	371	358	365
9	199	165	181	186	184	185	133	129	131	395	374	385
10	208	201	205	185	181	182	135	132	133	418	399	411
11	221	208	214	180	179	179	135	120	129	444	422	432
12	239	223	232	184	180	183	129	122	125	441	401	426
13	238	226	232	179	171	175	129	125	127	474	406	435
14	224	218	219	171	169	170	128	123	126	433	413	425
15	213	204	207	172	167	170	126	118	121	483	417	441
16	203	193	198	169	160	164	135	127	132	489	428	453
17	194	191	192	160	141	149	131	120	123	505	444	464
18	193	189	192	130	120	124	124	121	122	518	458	472
19	188	183	186	120	100	104	122	120	121	519	453	476
20	195	188	191	104	102	103	131	123	128	521	466	481
21	192	188	190	106	103	105	132	128	130	513	480	488
22	188	186	187	107	103	105	135	129	132	529	478	494
23	189	186	187	113	106	109	136	134	135	539	476	496
24	186	179	181	114	107	111	162	139	152	520	468	488
25	178	174	176	116	108	113	189	165	180	499	448	469
26	173	171	172	113	110	112	206	193	201	479	462	471
27	172	171	171	115	111	113	229	208	219	478	461	467
28	171	170	171	113	111	112	259	232	248	513	474	483
29	169	164	166	112	107	111	273	262	267	519	466	482
30	169	165	167	110	107	109	289	275	283	505	479	493
31	---	---	---	109	107	108	298	291	294	---	---	---
MONTH	239	155	185	186	100	144	298	106	153	539	301	427
YEAR	539	84	203									

WATER TEMPERATURE (DEG.° C). RECORDER MAXIMUM MINIMUM, AND MEAN,
WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	11.0	15.5	11.0	7.0	8.5	2.0	.0	.5	.5	.5	.5
2	18.5	10.5	14.5	10.5	6.0	8.0	1.0	.0	.0	.5	.0	.5
3	20.0	9.5	14.0	9.5	6.5	8.0	.5	.0	.0	.5	.5	.5
4	19.5	8.5	13.0	11.0	6.0	8.5	.5	.0	.0	.5	.5	.5
5	19.5	8.5	13.0	9.0	6.5	7.5	.5	.0	.0	.5	.5	.5
6	18.0	7.5	11.5	9.5	5.0	7.0	.5	.0	.0	.5	.5	.5
7	18.0	8.0	12.5	9.5	4.5	6.5	.5	.0	.5	.5	.0	.5
8	17.0	7.5	11.5	10.0	4.0	7.0	.5	.0	.5	.5	.5	.5
9	18.0	8.5	12.5	9.5	5.0	7.0	.5	.0	.5	.5	.5	.5
10	18.5	8.5	13.0	8.5	4.0	6.0	.5	.0	.5	.5	.5	.5
11	18.0	7.5	12.0	7.0	5.0	5.5	.5	.5	.5	.5	.5	.5
12	17.5	7.5	12.0	6.5	1.0	4.0	.5	.5	.5	.5	.5	.5
13	14.0	12.5	13.5	2.5	.0	1.0	.5	.5	.5	.5	.5	.5
14	15.0	5.5	10.0	2.5	.5	1.5	.5	.5	.5	.5	.5	.5
15	16.0	6.5	10.5	6.0	1.5	3.5	.5	.5	.5	.5	.5	.5
16	14.5	7.0	10.5	6.0	1.5	3.0	.5	.5	.5	.5	.5	.5
17	12.5	8.0	10.0	4.5	.0	2.0	.5	.5	.5	.5	.5	.5
18	11.0	8.0	9.5	5.0	.0	2.0	.5	.5	.5	.5	.5	.5
19	12.5	7.5	10.0	4.0	.0	1.5	.5	.5	.5	.5	.5	.5
20	11.5	7.5	9.5	4.0	.0	1.5	.5	.5	.5	.5	.5	.5
21	9.5	8.5	9.0	4.5	.5	2.5	1.0	.5	.5	.5	.5	.5
22	10.0	6.5	8.0	5.5	2.0	3.5	.5	.5	.5	.5	.5	.5
23	8.0	4.0	6.0	5.0	1.0	2.5	.5	.5	.5	.5	.5	.5
24	10.5	7.0	8.5	2.5	.5	1.5	.5	.5	.5	.5	.5	.5
25	10.0	5.5	7.5	4.5	.5	2.0	.5	.5	.5	.5	.5	.5
26	9.0	3.0	6.0	4.0	.0	1.5	1.0	.5	.5	.5	.5	.5
27	9.5	4.0	6.5	4.5	.0	2.0	.5	.5	.5	1.0	.5	.5
28	10.0	4.5	7.5	1.5	.0	.0	.5	.5	.5	1.0	.5	.5
29	9.5	4.5	7.0	.0	.0	.0	.5	.0	.5	.5	.5	.5
30	10.0	5.0	7.5	1.0	.0	.0	.5	.5	.5	1.0	.5	1.0
31	9.5	6.0	8.0	---	---	---	.5	.5	.5	1.0	.5	.5
MONTH	21.0	3.0	10.5	11.0	.0	4.0	2.0	.0	.5	1.0	.0	.5

08251500 RIO GRANDE NEAR LOBATOS, CO -- Continued

WATER TEMPERATURE (DEG. °C) / RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	1.0	.5	.5	1.0	1.0	1.0	9.5	3.5	6.5	13.5	9.0	11.5
2	1.0	1.0	1.0	1.0	1.0	1.0	8.0	2.0	5.0	13.0	10.0	11.5
3	1.0	1.0	1.0	1.0	1.0	1.0	7.5	3.0	5.0	11.5	9.0	10.0
4	1.0	.5	1.0	1.0	1.0	1.0	9.5	2.0	6.0	14.5	8.5	11.0
5	1.0	1.0	1.0	1.0	1.0	1.0	12.0	4.0	8.0	15.5	10.0	12.5
6	1.0	1.0	1.0	1.0	1.0	1.0	13.0	6.5	9.5	14.5	10.5	12.5
7	1.0	1.0	1.0	1.0	1.0	1.0	13.5	7.5	10.0	12.0	9.5	10.5
8	1.0	1.0	1.0	1.0	1.0	1.0	15.0	7.0	11.0	11.0	8.0	9.5
9	1.0	1.0	1.0	1.0	1.0	1.0	10.5	7.5	9.0	9.0	7.5	8.5
10	1.0	1.0	1.0	1.0	1.0	1.0	8.0	6.0	6.5	8.5	5.5	7.5
11	1.0	1.0	1.0	1.5	.5	1.0	6.5	5.0	5.5	12.0	6.5	9.5
12	1.0	1.0	1.0	1.5	.5	1.0	7.5	3.5	5.5	14.5	8.0	11.5
13	1.0	1.0	1.0	1.5	.5	1.0	9.5	2.5	6.0	16.0	10.0	13.0
14	1.0	1.0	1.0	1.5	.5	1.0	12.5	5.0	9.0	18.0	11.5	15.0
15	1.0	1.0	1.0	2.0	.5	1.0	14.5	7.0	11.0	16.5	13.0	15.0
16	1.0	1.0	1.0	2.0	.5	1.0	15.5	9.0	12.5	16.0	12.5	14.0
17	1.0	1.0	1.0	2.0	.5	1.0	15.5	10.5	13.0	16.0	12.0	14.0
18	1.0	1.0	1.0	4.5	1.0	2.5	14.5	11.0	12.5	18.0	12.0	14.5
19	1.0	1.0	1.0	6.0	2.5	4.0	12.5	9.0	10.5	17.0	13.0	15.0
20	1.0	.5	1.0	4.5	2.5	3.5	13.0	7.5	10.5	15.5	12.0	13.5
21	1.0	1.0	1.0	5.5	2.0	3.0	12.0	8.0	10.5	16.0	11.0	13.5
22	1.0	1.0	1.0	5.0	1.0	3.0	13.0	9.0	11.0	18.5	13.0	15.5
23	1.0	1.0	1.0	7.0	2.0	4.5	14.0	10.0	12.0	17.5	14.0	16.5
24	1.0	1.0	1.0	8.0	1.0	4.5	14.0	10.0	12.0	16.0	14.0	15.0
25	1.0	1.0	1.0	8.5	3.0	6.0	13.0	10.0	11.5	17.0	13.0	15.0
26	1.0	1.0	1.0	8.5	3.5	6.0	14.0	9.5	12.0	17.5	14.5	15.5
27	1.0	1.0	1.0	7.5	3.5	5.5	14.0	10.0	12.0	17.5	13.5	15.5
28	1.0	1.0	1.0	9.0	4.5	7.0	14.5	10.5	12.5	18.5	14.5	16.5
29	---	---	---	8.5	4.0	6.0	12.5	9.5	11.0	19.0	15.5	17.5
30	---	---	---	10.0	3.5	7.0	13.0	8.5	10.5	17.0	9.5	15.5
31	---	---	---	8.5	5.0	6.5	---	---	---	16.5	13.0	14.5
MONTH	1.0	.5	1.0	10.0	.5	3.0	15.5	2.0	9.5	19.0	5.5	13.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	15.0	13.0	14.0	19.0	14.5	17.0	23.0	18.0	20.5	24.5	15.0	19.5
2	16.5	13.0	14.5	19.5	15.5	17.5	23.5	19.0	21.5	21.5	15.5	18.5
3	18.0	13.5	15.5	18.5	15.5	17.0	24.0	19.5	21.5	25.0	14.5	19.5
4	18.0	15.0	16.5	19.0	14.0	16.5	24.0	19.5	21.5	24.0	16.5	20.0
5	18.5	15.0	16.5	20.5	15.5	18.0	25.0	19.5	22.0	25.5	14.5	20.0
6	19.0	15.0	17.0	18.5	16.0	17.0	25.0	19.0	21.0	26.5	16.0	21.0
7	19.0	16.0	17.5	19.5	14.5	17.0	25.0	19.0	21.5	24.0	16.0	19.5
8	17.5	12.5	15.0	20.5	16.0	18.0	24.0	19.0	21.5	26.5	15.5	20.5
9	12.5	10.5	11.5	21.5	16.5	19.0	24.0	19.0	21.5	28.0	17.0	21.5
10	14.5	10.5	12.5	22.0	17.5	19.5	24.0	19.5	21.5	27.5	16.0	21.0
11	17.5	13.0	15.5	22.5	17.5	20.0	22.5	18.0	20.0	26.0	17.0	20.5
12	20.5	16.0	18.5	23.0	18.0	20.5	23.0	17.0	20.0	25.5	15.0	18.5
13	21.0	17.5	19.5	23.0	18.0	21.0	21.0	17.5	19.5	21.5	13.5	17.0
14	19.0	15.0	17.0	23.5	19.0	21.5	19.5	17.5	18.5	13.5	11.5	12.5
15	16.5	13.5	15.0	23.0	18.5	21.0	20.0	16.0	17.5	21.5	9.5	15.0
16	15.5	12.5	14.0	22.5	19.0	21.0	19.5	15.5	17.0	24.0	12.0	17.5
17	14.5	11.5	13.0	22.5	18.0	20.5	19.5	15.0	17.5	21.5	13.0	16.5
18	13.5	11.0	12.0	22.5	18.0	20.0	18.0	15.0	17.0	21.5	12.0	16.0
19	12.5	10.0	11.0	22.5	17.5	20.0	19.0	14.5	16.5	23.5	11.0	16.5
20	15.0	10.5	12.5	23.5	18.0	20.5	18.5	14.0	16.5	21.0	13.5	16.5
21	16.5	11.5	14.0	23.5	18.5	21.0	20.0	14.0	17.0	20.5	13.0	16.0
22	17.0	12.5	15.0	24.0	20.0	22.0	21.5	15.0	18.0	23.0	12.0	17.0
23	18.0	13.0	15.5	24.0	20.0	22.0	19.5	16.5	17.5	24.0	12.5	17.5
24	16.5	14.0	15.5	24.5	19.5	22.0	24.0	18.5	21.0	24.0	12.5	18.0
25	17.0	12.0	14.5	23.5	20.0	22.0	23.0	18.5	20.5	22.0	13.0	17.0
26	17.0	12.5	15.0	24.0	19.0	21.5	22.0	17.5	19.0	19.5	12.5	15.5
27	19.0	14.5	17.0	24.0	19.5	21.5	22.0	15.5	18.5	19.0	11.5	15.0
28	20.0	16.0	18.0	22.5	20.0	21.5	24.0	16.5	20.0	21.5	11.0	15.5
29	19.5	17.0	18.0	21.5	18.5	19.5	24.5	16.5	20.5	21.5	11.0	16.0
30	18.0	15.0	17.0	22.5	17.5	19.5	21.5	18.0	19.5	20.5	11.0	15.5
31	---	---	---	21.0	17.0	19.5	23.0	16.0	19.0	---	---	---
MONTH	21.0	10.0	15.5	24.5	14.0	20.0	25.0	14.0	19.5	28.0	9.5	17.5
YEAR	28.0	.0	9.5									

08252000 RIO GRANDE AT COLORADO-NEW MEXICO STATE LINE

LOCATION.--Lat 37° 00' 03", long 105°43'19", Costilla County, Hydrologic Unit 13010002, in Sangre de Cristo Grant, on left bank 0.6 mi (1.0 km) upstream from Colorado-New Mexico State line, 1.7 mi (2.7 km) upstream from Costilla Creek, 5.5 mi (8.8 km) west of Jaroso, and at mile 1,713.3 (2,756.7 km).

DRAINAGE AREA.--7,890 mi^2 (20,440 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in northern part of San Luis Valley, CO.

PERIOD OF RECORD.--October 1953 to current year.

REVISED RECORDS.--WSP 1732: 1954(M).

GAGE.--Water-stage recorder. Altitude of gage is 7,390 ft (2,252 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Natural flow of stream affected by transmountain diversions, storage reservoirs, ground-water withdrawals and diversions for irrigation, and return flow from irrigated areas. Several observations of water temperature were made during the year.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--26 years, 342 ft^3/s (9.685 m^3/s), 247,800 acre-ft/yr (306 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 5,000 ft^3/s (142 m^3/s) June 10, 1979, gage height, 7.77 ft (2.368 m); no flow at times in 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 8, 1905, which reached a daily discharge of 13,100 ft^3/s (371 m^3/s) at station near Lobatos, 5.8 mi (9.3 km) upstream, was probably the greatest since at least 1828, based on information from area residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,000 ft^3/s (142 m^3/s) June 10, gage height, 7.77 ft (2.368 m); minimum daily, 44 ft^3/s (1.25 m^3/s) Sept. 29, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92	268	186	175	190	250	504	1350	4060	2890	1080	243
2	92	240	210	160	190	255	490	1310	3980	2740	962	222
3	92	246	170	155	185	260	456	1420	3750	2740	870	207
4	84	252	175	160	180	255	435	1640	3350	2760	790	189
5	88	255	200	160	180	250	418	1570	3300	2620	707	175
6	86	268	175	160	180	260	398	1570	3390	2570	653	157
7	95	286	105	160	185	290	401	1730	3450	2600	615	143
8	95	277	75	155	190	335	421	1920	3630	2580	591	130
9	92	268	85	155	190	310	470	1870	4120	2510	591	115
10	90	252	115	155	190	320	555	1610	4860	2560	575	103
11	88	249	140	155	190	340	615	1280	4810	2520	658	88
12	88	255	140	160	190	355	615	1150	4180	2230	671	76
13	88	261	140	155	190	375	575	968	3550	2110	653	64
14	88	280	150	155	190	385	539	895	3350	1940	644	54
15	95	320	165	160	190	405	508	900	3580	1710	756	52
16	108	292	170	165	185	430	531	1180	3960	1550	730	52
17	234	264	165	170	185	450	666	1570	4230	1640	800	50
18	317	264	170	175	195	470	850	1560	4150	1890	880	48
19	385	255	175	170	205	480	1080	1540	3800	1900	875	47
20	431	243	180	175	195	505	1310	1720	3370	1960	738	47
21	470	237	185	180	205	531	1320	2130	3120	1900	707	47
22	498	234	185	180	215	512	1310	2430	3030	1830	662	48
23	504	237	180	180	225	504	1370	2450	3000	1680	623	50
24	527	255	180	185	230	519	1500	2570	2990	1620	595	48
25	480	274	175	190	235	543	1600	2780	3090	1480	551	47
26	411	274	175	190	240	607	1470	2920	3240	1340	504	47
27	391	268	175	190	245	599	1400	3060	3280	1240	470	47
28	385	240	175	190	250	523	1270	3120	3170	1220	378	46
29	362	207	175	190	---	531	1300	3290	3110	1160	330	44
30	346	163	175	180	---	543	1360	3590	3010	1120	280	44
31	320	---	170	185	---	531	---	3930	---	1100	261	---
TOTAL	7522	7684	5041	5275	5620	12923	25737	61023	107910	61710	20200	2730
MEAN	243	256	163	170	201	417	858	1968	3597	1991	652	91.0
MAX	527	320	210	190	250	607	1600	3930	4860	2890	1080	243
MIN	84	163	75	155	180	250	398	895	2990	1100	261	44
AC-FT	14920	15240	10000	10460	11150	25630	51050	121000	214000	122400	40070	5410

CAL YR 1978 TOTAL 88852 MEAN 243 MAX 885 MIN 38 AC-FT 176200
WTR YR 1979 TOTAL 323375 MEAN 886 MAX 4860 MIN 44 AC-FT 641400

08252500 COSTILLA CREEK ABOVE COSTILLA DAM, NM

LOCATION.--Lat 36°53'52", long 105°15'16", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 1,900 ft (580 m) upstream from normal high-water line of Costilla Reservoir, 2.1 mi (3.4 km) northeast of Costilla Dam, 16 mi (26 km) southeast of Costilla, and at mile 36.9 (59.4 km).

DRAINAGE AREA.--25.1 mi^2 (65.0 km^2).

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Prior to October 1951, published as "above reservoir, near Costilla."

REVISED RECORDS.--WSP 878: 1937. WSP 1923: 1937-50, drainage area.

GAGE.--Water-stage recorder. Concrete control since Sept. 17, 1965. Altitude of gage is 9,429 ft (2,874 m), from topographic map. See WSP 1923 for history of changes prior to Sept. 17, 1965.

REMARKS.--Records good. Natural flow may be augmented by transbasin diversions or irrigation returns from about 1,300 acres (5.3 km^2) irrigated from Casias Creek (station 08253000). Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,870 ft^3/s (110 m^3/s) July 22, 1954, gage height, 6.3 ft (1.92 m), from floodmarks, present site and datum, on basis of slope-area measurement of peak flow; minimum not determined.

The flood in 1954 destroyed the gaging station and is highest since about 1909, from information by local range rider. A portion of this flow may have originated in Casias Creek basin (see REMARKS).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 40 ft^3/s (1.1 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
May 20	1930	133	3.77	3.35	1.021	May 26	0030	a*200	5.66	3.66	1.116
May 24	2030	174	4.93	3.55	1.082	June 8	1830	185	5.24	3.60	1.097

a From rating curve extended above 54 ft^3/s (1.5 m^3/s)

Minimum discharge not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.6							16	66	23	5.4	3.4
2	1.6							16	55	23	5.1	3.4
3	1.8							17	52	22	5.1	3.4
4	---							17	55	20	4.7	3.2
5	---							17	56	19	4.3	3.2
6	---							18	52	17	4.3	3.2
7	---							19	58	15	4.7	3.1
8	---							21	109	14	5.6	3.1
9	---							22	72	13	5.6	3.2
10	---							19	49	12	5.4	3.1
11	---							19	44	11	4.9	3.4
12	---							16	43	10	4.5	3.2
13	---							15	47	9.6	5.2	2.9
14	---							16	53	9.9	11	3.4
15	---							19	60	10	16	3.7
16	---							20	55	10	9.0	3.2
17	---							25	45	10	7.0	2.9
18	---							28	39	9.9	6.7	2.9
19	---							32	37	9.0	5.8	2.9
20	---							58	32	8.1	5.6	3.1
21	---							61	29	8.1	5.2	3.8
22	---							44	28	7.4	4.9	3.4
23	---							48	29	7.0	4.5	3.1
24	---							73	35	6.7	4.5	3.1
25	---							80	34	6.7	4.1	2.9
26	---							114	30	6.5	4.7	2.8
27	---							77	28	6.3	5.1	2.8
28	---							75	26	6.5	4.0	2.9
29	---							83	25	6.5	3.7	2.8
30	---							77	24	6.7	3.7	2.6
31	---							70	---	5.8	3.5	---
TOTAL	---	---	---	---	---	---	---	1232	1367	349.7	173.8	94.1
MEAN	---	---	---	---	---	---	---	39.7	45.6	11.3	5.61	3.14
MAX	---	---	---	---	---	---	---	114	109	23	16	3.8
MIN	---	---	---	---	---	---	---	15	24	5.8	3.5	2.6
AC-FT	---	---	---	---	---	---	---	2440	2710	694	345	187

08253000 CASIAS CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°53'48", long 105°15'35", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 200 ft (61 m) downstream from road crossing, 900 ft (270 m) upstream from normal high-water line of Costilla Reservoir, 1.8 mi (2.9 km) northeast of Costilla Dam, and 16 mi (26 km) southeast of Costilla.

DRAINAGE AREA.--16.6 mi² (43.0 km²).

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732. Records for Nov. 1-7, 1947, and Nov. 1-16, 1948, published in WSP 1118 and 1148, are unreliable and should not be used.

REVISED RECORDS.--WSP 1282: 1948-51. WSP 1923: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,404 ft (2,866 m), from topographic map. Prior to July 18, 1940, water-stage recorder and wooden control 100 ft (30 m) downstream at datum 1.56 ft (0.475 m) lower.

REMARKS.--Records good. Diversion 3.5 mi (5.6 km) upstream for irrigation of about 1,300 acres (5.3 km²), part of which is in Costilla Creek basin. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 181 ft³/s (5.13 m³/s) July 20, 1971, gage height, 2.07 ft (0.631 m), from rating curve extended above 85 ft³/s (2.4 m³/s); minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 35 ft³/s (1.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 20	2000	57	1.61	1.30	.396
May 24	2100	71	2.01	1.41	.430
May 26	0100	91	2.58	1.55	.472
June 8	1830	*153	4.33	1.93	.588

Minimum discharge not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.7						---	13	54	67	20	8.4
2	3.7						---	13	47	68	20	8.0
3	3.7						---	15	45	64	18	8.0
4	---						---	15	48	59	16	7.7
5	---						---	15	50	55	16	7.7
6	---						---	16	50	52	16	7.7
7	---						---	17	55	48	16	6.9
8	---						---	18	96	46	16	6.5
9	---						---	21	89	45	16	6.9
10	---						---	19	75	44	16	7.7
11	---						---	18	68	43	15	8.8
12	---						---	14	67	42	14	8.0
13	---						---	13	75	41	13	8.4
14	---						---	13	82	40	19	8.8
15	---						---	13	91	41	24	8.8
16	---						---	15	94	40	17	8.0
17	---						---	16	92	38	15	7.7
18	---						---	18	92	38	15	7.3
19	---						---	20	98	36	14	6.9
20	---						---	31	83	35	13	6.9
21	---						---	35	76	32	13	8.0
22	---						---	29	73	31	12	6.9
23	---						---	30	75	30	12	6.5
24	---						15	39	83	29	11	6.1
25	---						13	43	79	28	11	6.1
26	---						13	64	77	27	11	5.8
27	---						13	53	76	26	9.8	5.4
28	---						15	51	75	25	8.8	5.4
29	---						13	57	64	24	8.4	5.4
30	---						13	60	65	23	9.3	5.4
31	---						---	57	---	21	9.3	---
TOTAL	---	---	---	---	---	---	---	851	2194	1238	444.6	216.1
MEAN	---	---	---	---	---	---	---	27.5	73.1	39.9	14.3	7.20
MAX	---	---	---	---	---	---	---	64	98	68	24	8.8
MIN	---	---	---	---	---	---	---	13	45	21	8.4	5.4
AC-FT	---	---	---	---	---	---	---	1690	4350	2460	882	429

08253500 SANTISTEVAN CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°53'03", long 105°16'50", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 200 ft (61 m) upstream from road crossing, 1,300 ft (400 m) upstream from normal high-water line of Costilla Reservoir, 0.6 mi (1.0 km) north of Costilla Dam, and 16 mi (26 km) southeast of Costilla.

DRAINAGE AREA.--2.15 mi^2 (5.57 km^2).

PERIOD OF RECORD.--April 1937 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1312 and 1732.

REVISED RECORDS.--WSP 1923: Drainage area.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 9,487 ft (2,892 m), from topographic map. Prior to June 27, 1940, water-stage recorder and wooden control at datum 0.99 ft (0.302 m) lower.

REMARKS.--Records fair. No diversions above or below station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18 ft^3/s (0.51 m^3/s) Aug. 11, 1941, July 12, 1957; maximum gage height, 1.73 ft (0.527 m) Aug. 11, 1941; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6 ft^3/s (0.2 m^3/s) and maximum (*):

		Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
May 29	1800	13	.37	1.30	.396
June 8	1600	16	.45	1.46	.445
June 17	0100	16	.45	1.47	.448
July 1	2130	*17	.48	1.48	.451
July 3	1430	*17	.48	1.48	.451

Minimum discharge not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.88						---	2.5	12	12	4.9	2.2
2	.88						---	2.5	12	12	4.7	2.1
3	.88						---	2.5	11	13	4.6	2.0
4	---						---	2.4	11	12	4.4	1.9
5	---						---	2.7	11	11	4.2	1.9
6	---						---	3.0	11	11	4.1	1.9
7	---						---	3.4	12	10	4.0	1.8
8	---						---	3.4	13	9.5	4.1	1.7
9	---						---	3.4	13	9.3	3.9	1.7
10	---						---	3.3	13	9.1	3.8	1.7
11	---						---	3.1	12	8.9	3.6	1.7
12	---						---	3.1	12	8.4	3.4	1.6
13	---						---	3.0	13	8.0	3.4	1.6
14	---						---	3.2	13	7.8	4.1	1.6
15	---						---	3.3	14	7.6	4.6	1.6
16	---						---	3.4	15	7.3	3.6	1.6
17	---						---	3.8	16	7.2	3.4	1.5
18	---						---	4.2	15	7.2	3.4	1.5
19	---						---	4.7	15	7.0	3.3	1.5
20	---						---	5.1	14	6.7	3.2	1.5
21	---						---	5.3	13	6.4	3.1	1.6
22	---						---	5.4	12	6.1	3.0	1.6
23	---						---	5.8	12	5.8	2.9	1.5
24	---						2.6	7.3	12	5.6	2.8	1.4
25	---						2.7	8.5	12	5.4	2.7	1.4
26	---						2.6	10	12	5.2	2.6	1.4
27	---						2.6	11	12	5.2	2.6	1.4
28	---						2.6	11	12	5.2	2.4	1.4
29	---						2.6	12	12	5.2	2.4	1.3
30	---						2.5	13	12	5.1	2.3	1.3
31	---						---	13	---	5.0	2.2	---
TOTAL	---	---	---	---	---	---	---	168.3	379	245.2	107.7	48.9
MEAN	---	---	---	---	---	---	---	5.43	12.6	7.91	3.47	1.63
MAX	---	---	---	---	---	---	---	13	16	13	4.9	2.2
MIN	---	---	---	---	---	---	---	2.4	11	5.0	2.2	1.3
AC-FT	---	---	---	---	---	---	---	334	752	486	214	97

08253900 COSTILLA RESERVOIR NEAR COSTILLA, NM

LOCATION.--Lat 36°52'32", long 105°16'45", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on face of Costilla Dam on Costilla Creek, 16 mi (26 km) southeast of Costilla, and at mile 34.8 (56.0 km).

DRAINAGE AREA.--54.6 mi² (141.4 km²).

PERIOD OF RECORD.--May 1922 to September 1965 (monthend contents only), October 1965 to current year. Records prior to October 1960 published in WSP 1732. Prior to October 1966, published as Costilla Lake near Costilla.

REVISED RECORDS.--WSP 1923: Drainage area.

GAGE.--Inclined staff gage painted on base of railroad rail on left side of control tower of Dam. Altitude of gage is -107 ft (-33 m), from topographic map.

REMARKS.--Reservoir is formed by earthfill dam faced with rock. Storage began in 1920. Capacity 15,740 acre-ft (19.4 hm³) between gage heights 9,405.0 ft (2,866.64 m), sill of outlet, and 9,513.0 ft (2,899.56 m), crest of ungated spillway cut in natural rock. No dead storage. By order of New Mexico State Engineer storage is limited to 14,540 acre-ft (17.9 hm³) maximum, and 10,880 acre-ft (13.4 hm³) for not to exceed 60 days. Diversions for irrigation of about 1,300 acres (5.26 km²) above Reservoir. Reservoir is used for irrigation.

COOPERATION.--Gage readings were collected in cooperation with New Mexico Interstate Stream Commission.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents observed, 15,130 acre-ft (18.7 hm³) June 13, 1938, June 20-23, 1941, gage height, 9,511.5 ft (2,899.11 m); no storage October 1925 to February 1926, September 1956, Aug. 22 to Sept. 24, 1972, July 29 to Sept. 7, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents observed, 13,420 acre-ft (16.5 hm³) June 19, gage height, 9,507.1 ft (2,897.76 m); minimum observed, 398 acre-ft (491,000 m³) Oct. 3, gage height, 9,434.9 ft (2,875.76 m).

Capacity table (gage height, in feet, and contents, in acre-ft)
(Based on original survey, furnished by New Mexico Interstate Stream Commission)

9,430	270	9,470	3,260
9,440	556	9,480	5,270
9,450	959	9,490	7,790
9,460	1,760	9,510	14,540

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	9580	13280	11020	8080
2	---	---	---	---	---	---	---	---	9830	13310	10880	8080
3	398	---	---	---	---	---	---	---	10090	13350	10610	8050
4	---	---	---	---	---	---	---	---	10320	13310	10580	7990
5	---	---	---	---	---	---	---	---	10550	13280	10580	7880
6	---	---	---	---	---	---	---	---	10860	13280	10410	7760
7	---	---	---	---	---	---	---	---	11050	13310	10220	7650
8	---	---	---	---	---	---	---	---	11330	13350	9960	7650
9	---	---	---	---	---	---	---	5230	11710	13350	9730	7650
10	---	---	---	---	---	---	---	5320	11890	13350	9580	7600
11	---	---	---	---	---	---	---	5360	12030	13350	9580	7520
12	---	---	---	---	---	---	---	---	12240	13350	9540	7350
13	---	---	---	---	---	---	---	---	12460	13350	9420	7240
14	---	---	---	---	---	---	---	5660	12680	13350	9260	7140
15	---	---	---	---	---	---	---	5620	12900	13350	9110	---
16	---	---	---	---	---	---	---	5780	13090	13350	9110	7140
17	---	---	---	---	---	---	---	5850	13280	13240	9050	7060
18	---	---	---	---	---	---	---	5970	13350	13200	9050	7000
19	---	---	---	---	---	---	---	---	13420	13120	9050	6950
20	---	1200	---	---	---	---	---	---	13380	13010	8990	6870
21	---	---	---	---	---	---	---	6490	13310	12940	8900	6800
22	---	---	---	---	---	---	---	6670	13280	12830	8810	---
23	---	---	---	---	---	---	---	6900	13280	12720	8660	6800
24	---	---	---	---	---	---	4050	7060	13310	12640	8510	6770
25	---	---	---	---	---	---	---	7350	13310	12460	8510	6740
26	758	---	---	---	---	---	---	---	13350	12280	8510	6690
27	---	---	---	---	---	---	---	---	13350	12100	8480	6640
28	---	---	---	---	2450	---	---	8360	13310	11890	8390	6590
29	---	---	---	---	---	---	---	8630	13310	11710	8280	---
30	---	1350	---	---	---	---	4500	8990	13310	11500	8190	6600
31	850	---	1700	2050	---	3000	---	9300	---	11260	8080	---
MAX	---	---	---	---	---	---	---	---	13420	13350	11020	---
MIN	---	---	---	---	---	---	---	---	9580	11260	8080	---
(†)	----	----	----	----	----	----	----	9495.1	9506.8	9501.1	9491.0	----
(‡)	+500	+500	+350	+350	+400	+550	+1500	+4800	+4010	-2050	-3180	-1480

CAL YR 1978 ‡ + 100
WTR YR 1979 ‡ +6250

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
NOTE.--Contents interpolated at end of month except May 31, June 30, July 31, and August 31.

08254000 COSTILLA CREEK BELOW COSTILLA DAM, NM

LOCATION.--Lat 36°52'26", long 105°16'47", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 125 ft (38 m) downstream from Costilla Dam, 16 mi (26 km) southeast of Costilla, and at mile 34.7 (55.8 km).

DRAINAGE AREA.--54.6 mi² (141.4 km²).

PERIOD OF RECORD.--April 1937 to current year (no winter records 1937-44, 1947-49). Monthly discharge only for some periods, published in WSP 1312. Prior to October 1951, published as "below reservoir, near Costilla."

REVISED RECORDS.--WSP 1923: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 9,290 ft (2,832 m), from topographic map.

REMARKS.--Records good except those below 1.0 ft³/s (0.03 m³/s), which are poor. Flow regulated by Costilla Reservoir (station 08253900). Diversions for irrigation of about 1,300 acres (5.3 km²) above Reservoir. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--33 years (water years 1945-47, 1950-79), 16.4 ft³/s (0.464 m³/s), 11,880 acre-ft/yr (14.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 301 ft³/s (8.52 m³/s) June 19, 1979, gage height, 3.04 ft (0.927m); no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 301 ft³/s (8.52 m³/s) June 19, gage height, 3.04 ft (0.927 m); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.12	.04	.03	.03	.03	.03	.04	.05	.04	97	140	15
2	.10	.04	.03	.03	.03	.03	.04	.05	.04	95	140	27
3	.08	.05	.03	.03	.03	.03	.04	.05	.04	95	79	54
4	.08	.07	.03	.03	.03	.03	.04	.04	.04	93	42	62
5	.08	.07	.03	.03	.03	.03	.04	.05	.04	80	65	67
6	.08	.07	.03	.03	.03	.03	.04	.05	.04	69	134	65
7	.08	.07	.03	.03	.03	.03	.04	.05	.04	65	134	31
8	.08	.07	.03	.03	.03	.03	.04	.05	20	65	133	10
9	.08	.05	.03	.03	.03	.03	.04	.05	62	65	133	30
10	.08	.05	.03	.03	.03	.03	.04	.05	62	60	67	77
11	.07	.07	.03	.03	.03	.03	.04	.04	41	52	24	76
12	.07	.07	.03	.03	.03	.03	.04	.03	22	52	50	76
13	.07	.05	.03	.03	.03	.03	.04	.03	22	52	116	76
14	.07	.05	.03	.03	.03	.03	.04	.02	30	52	116	40
15	.07	.05	.03	.03	.03	.03	.04	.02	44	52	86	19
16	.07	.04	.03	.03	.03	.04	.05	.02	54	76	58	26
17	.07	.04	.03	.03	.03	.04	.05	.02	84	91	35	43
18	.07	.04	.03	.03	.03	.04	.05	.02	119	91	22	43
19	.07	.03	.03	.03	.03	.04	.05	.02	137	91	39	43
20	.07	.03	.03	.03	.03	.04	.05	.03	144	91	78	43
21	.07	.03	.03	.03	.03	.04	.05	.03	127	91	78	24
22	.07	.03	.03	.03	.03	.04	.05	.03	114	91	78	12
23	.08	.03	.03	.03	.03	.04	.05	.02	111	94	78	22
24	.07	.03	.03	.03	.03	.04	.05	.03	111	108	43	34
25	.07	.03	.03	.03	.03	.04	.05	.03	111	133	20	34
26	.07	.03	.03	.03	.03	.04	.05	.03	111	133	32	34
27	.05	.03	.03	.03	.03	.04	.04	.03	111	133	65	34
28	.04	.03	.03	.03	.03	.04	.04	.03	111	133	65	24
29	.04	.03	.03	.03	---	.04	.05	.03	106	136	65	7.3
30	.04	.03	.03	.03	---	.04	.05	.03	101	142	65	.04
31	.04	---	.03	.03	---	.04	---	.04	---	140	33	---
TOTAL	2.20	1.35	.93	.93	.84	1.09	1.33	1.07	1955.28	2818	2313	1148.34
MEAN	.071	.045	.030	.030	.030	.035	.044	.035	65.2	90.9	74.6	38.3
MAX	.12	.07	.03	.03	.03	.04	.05	.05	144	142	140	77
MIN	.04	.03	.03	.03	.03	.03	.04	.02	.04	52	20	.04
AC-FT	4.4	2.7	1.8	1.8	1.7	2.2	2.6	2.1	3880	5590	4590	2280

CAL YR 1978 TOTAL 5671.93 MEAN 15.5 MAX 133 MIN .03 AC-FT 11250
WTR YR 1979 TOTAL 8244.36 MEAN 22.6 MAX 144 MIN .02 AC-FT 16350

NOTE.--No gage-height record Nov. 13 to Apr. 26.

08254500 COSTILLA CREEK NEAR AMALIA, NM

LOCATION.--Lat 36°52'33", long 105°23'22", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on right bank 0.5 mi (0.8 km) upstream from second bridge upstream from Amalia, 2.4 mi (3.9 km) downstream from Latir Creek, 5.8 mi (9.3 km) southeast of Amalia, 10.5 mi (16.9 km) southeast of Costilla, and at mile 25.4 (40.9 km).

DRAINAGE AREA.--152 mi² (394 km²).

PERIOD OF RECORD.--May 1949 to September 1959 and April 1961 to current year (no winter records). Monthly discharge only for some periods, published in WSP 1732.

REVISED RECORDS.--WSP 1732: 1956(M). WSP 1923: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Sept. 27, 1965. Altitude of gage is 8,521 ft (2,597 m), from topographic map. May 1949 to May 2, 1956, at site 40 ft (12 m) upstream at datum 0.81 ft (0.247 m) lower. May 3, 1956 to Sept. 27, 1965, at site 10 ft (3 m) downstream at datum 1.81 ft (0.552 m) lower.

REMARKS.--Records fair. Flow regulated by Costilla Reservoir (station 08253900) about 10 mi (16 km) upstream. Diversions for irrigation of about 1,300 acres (5.3 km²) above Costilla Reservoir. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharges, 689 ft³/s (19.5 m³/s) Apr. 25, 1958, gage height, 3.70 ft (1.128 m), site and datum then in use; maximum gage height, 3.26 ft (0.994 m) June 8, 1979, (backwater from debris); minimum discharge not determined.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 583 ft³/s (16.5 m³/s) May 24, gage height, 3.07 ft (0.936 m), from rating curve extended above 230 ft³/s (6.5 m³/s); maximum gage height, 3.26 ft (0.994 m) June 8 (backwater from debris); minimum discharge not determined.

DISCHANGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.9						---	100	230	166	147	31
2	4.2						---	106	235	153	144	33
3	---						---	114	198	150	106	66
4	---						---	100	170	142	61	71
5	---						---	98	165	125	67	77
6	---						---	112	155	110	139	76
7	---						21	134	166	103	142	56
8	---						28	140	260	99	142	26
9	---						32	151	328	97	144	28
10	---						26	132	253	95	101	82
11	---						22	116	226	84	47	84
12	---						21	100	183	84	54	84
13	---						20	90	180	82	120	82
14	---						30	92	183	82	139	62
15	---						40	98	190	82	132	34
16	---						51	104	198	97	82	34
17	---						74	128	210	110	65	54
18	---						117	140	248	113	47	54
19	---						119	153	253	113	51	54
20	---						110	187	253	113	91	56
21	---						107	312	226	113	91	47
22	---						122	248	194	113	91	27
23	---						139	218	190	110	91	29
24	---						150	243	190	120	69	47
25	---						128	318	187	144	40	47
26	---						119	387	180	144	45	47
27	---						114	340	176	144	80	46
28	---						117	302	173	144	80	40
29	---						107	290	170	144	79	24
30	---						100	270	166	150	77	14
31	---						---	250	---	147	58	---
TOTAL	---	—	—	—	—	—	---	5573	6136	3673	2822	1512
MEAN	---	—	—	—	—	—	---	180	205	118	91.0	50.4
MAX	---	—	—	—	—	—	---	387	328	166	147	84
MIN	---	—	—	—	—	—	---	90	155	82	40	14
AC-FT	---	—	—	—	—	—	---	11050	12170	7290	5600	3000

08255500 COSTILLA CREEK NEAR COSTILLA, NM

LOCATION.--Lat 36°58'01", long 105°30'23", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on right bank 70 ft (21 m) downstream from bridge on State Highway 196, 0.5 mi (0.8 km) upstream from diversion dam, 1.6 mi (2.6 km) southeast of Costilla, and at mile 15.9 (25.6 km).

DRAINAGE AREA.—195 mi² (505 km²).

PERIOD OF RECORD.—March 1936 to current year (no winter records 1936-41, 1943, corrected). Monthly discharge for March 1943 and water-year estimate for 1943, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1937-39 (M).

GAGE.--Water-stage recorder. Concrete control since Oct. 13, 1952. Altitude of gage is 7,900 ft (2,408 m), from topographic map. Prior to June 18, 1944, at site 200 ft (61 m) downstream at different datum. June 18, 1944 to Sept. 30, 1964, at site 0.4 mi (0.6 km) upstream at different datum.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Costilla Reservoir (station 08253900) 19 mi (31 km) upstream. Diversions for irrigation of about 2,000 acres (8.1 km²) above station.

AVERAGE DISCHARGE.—38 years (water years 1942-79), 41.2 ft³/s (1.167 m³/s), 29,850 acre-ft/yr (36.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,150 ft³/s (32.6 m³/s) May 11, 1942, gage height, 5.37 ft (1.637 m), site and datum then in use; minimum, 0.34 ft³/s (0.010 m³/s) Mar. 15, 1969, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.—A major flood occurred in 1886, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 175 ft³/s (5.0 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 19	0230	190	5.38	3.23	.985	May 26	1715	*547	15.5	4.62	1.408
Apr. 24	0330	204	5.78	3.29	1.003	June 9	0400	532	15.1	4.58	1.396
May 9	2300	192	5.44	3.24	.988	July 2	0045	301	8.52	3.76	1.146
May 22	0215	379	10.7	3.96	1.207	Aug. 15	1330	197	5.58	3.31	1.009

Minimum discharge, 1.9 ft³/s (0.054 m³/s) Nov. 28, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.4	4.6	7.0	6.0	7.0	10	22	108	316	202	168	36
2	5.1	4.5	8.0	5.0	8.0	10	19	115	327	224	165	34
3	4.8	4.7	6.0	7.0	8.0	9.9	21	122	285	202	137	60
4	4.6	8.0	5.0	8.0	7.0	9.9	17	123	259	190	69	68
5	4.5	9.6	6.0	8.0	7.0	9.0	20	110	252	169	63	76
6	4.5	7.1	4.3	9.0	8.0	10	22	125	242	152	135	72
7	4.5	5.8	4.0	9.0	8.0	11	28	146	252	143	149	64
8	4.5	5.1	3.5	7.0	8.0	12	33	163	319	132	151	29
9	4.5	4.9	3.0	8.0	8.0	13	41	182	450	124	153	26
10	4.5	4.6	5.0	8.0	8.0	12	37	164	352	117	132	70
11	4.6	4.9	6.0	8.0	8.0	13	32	144	316	105	58	80
12	4.7	5.7	7.0	8.0	8.0	15	31	125	272	100	53	82
13	4.5	5.9	7.0	9.0	9.0	16	29	106	277	94	120	81
14	4.7	5.4	6.5	8.0	9.0	18	33	104	288	92	156	72
15	4.6	5.2	6.5	9.0	10	22	40	115	303	92	169	39
16	4.7	6.0	6.5	9.0	10	23	54	129	306	107	104	35
17	4.7	6.6	6.5	10	10	23	68	154	293	132	82	49
18	4.8	8.4	9.0	10	9.0	20	105	167	314	132	58	52
19	4.9	9.4	12	10	9.0	18	140	191	316	132	55	52
20	5.0	12	7.0	9.0	9.0	21	128	210	314	130	94	53
21	6.4	12	5.0	9.0	10	20	120	305	295	128	99	53
22	11	12	5.0	9.0	10	15	130	309	262	124	98	30
23	8.9	12	5.0	8.0	10	17	155	285	254	119	96	26
24	6.8	12	5.0	9.0	10	17	167	279	254	122	84	44
25	5.1	15	6.0	10	9.0	18	157	360	254	147	46	45
26	4.8	12	6.0	10	9.0	21	142	482	236	149	45	45
27	4.8	11	7.0	10	10	23	129	462	229	147	79	45
28	4.9	5.0	8.0	9.0	10	25	131	421	219	152	81	45
29	4.6	7.0	9.0	9.0	---	26	122	396	212	154	80	26
30	4.4	7.0	9.0	8.0	---	23	112	379	204	162	79	17
31	4.6	---	9.0	7.0	---	25	---	346	---	169	69	---
TOTAL	161.4	233.4	199.8	263.0	246.0	525.8	2285	6827	8472	4344	3127	1506
MEAN	5.21	7.78	6.45	8.48	8.79	17.0	76.2	220	282	140	101	50.2
MAX	11	15	12	10	10	26	167	482	450	224	169	82
MIN	4.4	4.5	3.0	5.0	7.0	9.0	17	104	204	92	45	17
AC-FT	320	463	396	522	488	1040	4530	13540	16800	8620	6200	2990

CAL YR 1978 TOTAL 10677.0 MEAN 29.3 MAX 119 MIN 3.0 AC-FT 21180
WTR YR 1979 TOTAL 28190.4 MEAN 77.2 MAX 482 MIN 3.0 AC-FT 55920

NOTE.--No gage-height record Dec. 9 to Mar. 4.

08260500 COSTILLA CREEK BELOW DIVERSION DAM, AT COSTILLA, NM

LOCATION.--Lat 36°58'03", long 105°31'00", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on right bank 650 ft (200 m) downstream from diversion dam, 1.1 mi (1.8 km) southeast of Costilla, and at mile 15.3 (24.6 km).

DRAINAGE AREA.--197 mi² (510 km²).

PERIOD OF RECORD.--April 1952 to current year (no winter records).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,861 ft (2,396 m), from topographic map.

REMARKS.--Records poor. Flow partly regulated by Costilla Reservoir (station 08253900) 20 mi (32 km) upstream, and by canal headgates or sluice gates at diversion dam. Diversions above station for irrigation of about 5,000 acres (20 km²), 3,000 acres (12 km²) of which are below station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 540 ft³/s (15.3 m³/s) June 9, 1979, gage height, 4.66 ft (1.420 m), from rating curve extended above 220 ft³/s (6.2 m³/s); maximum gage height, 5.05 ft (1.539 m) July 24, 1957 (backwater from debris); no flow Oct. 14, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1886, from information by local residents. Flood of May 11, 1942, probably exceeded 1,000 ft³/s (28 m³/s), based on records for upstream station (station 08255500).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 540 ft³/s (15.3 m³/s) June 9, gage height, 4.66 ft (1.420 m), from rating curve extended above 220 ft³/s (6.2 m³/s); minimum not determined.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.9					---	20	66	239	142	28	6.7
2	4.0					---	3.7	72	257	180	27	6.4
3	---					---	.61	79	210	188	24	4.8
4	---					---	.54	77	168	197	29	3.4
5	---					---	.53	66	142	115	9.4	3.5
6	---					---	.50	80	133	46	6.0	3.4
7	---					---	.46	102	133	54	4.7	18
8	---					---	.43	117	233	49	9.6	16
9	---					---	.38	142	410	49	11	7.9
10	---					---	.40	128	290	48	7.3	5.6
11	---					---	.43	110	226	25	28	1.6
12	---					---	.43	77	168	23	16	.58
13	---					---	1.3	39	152	31	11	.45
14	---					---	.82	48	158	53	8.5	5.4
15	---					---	4.1	48	194	35	18	13
16	---					---	10	24	207	11	11	13
17	---					---	20	70	200	7.1	4.0	5.3
18	---					---	62	92	201	9.1	7.1	1.3
19	---					---	100	140	202	12	9.8	1.9
20	---					---	84	177	190	14	6.4	1.9
21	---					---	79	250	170	18	5.4	15
22	---					---	89	226	147	15	4.7	20
23	---					---	131	197	122	9.0	4.3	3.7
24	---					---	140	204	128	9.6	17	1.9
25	---					---	113	298	145	17	23	.62
26	---					---	98	442	122	17	8.8	.52
27	---					18	87	424	122	34	7.9	.35
28	---					20	89	358	126	40	7.0	.26
29	---					24	79	354	131	10	7.0	12
30	---					21	71	306	140	9.6	6.7	13
31	---					23	---	260	---	16	7.5	---
TOTAL	---	---	---	---	---	---	1286.63	5073	5466	1483.4	375.1	187.48
MEAN	---	---	---	---	---	---	42.9	164	182	47.9	12.1	6.25
MAX	---	---	---	---	---	---	140	442	410	197	29	20
MIN	---	---	---	---	---	---	.38	24	122	7.1	4.0	.26
AC-FT	---	---	---	---	---	---	2550	10060	10840	2940	744	372

08261000 COSTILLA CREEK AT GARCIA, CO

LOCATION.—Lat 36°59'21", long 105°31'54", Taos County, Hydrologic Unit 13020101, in Sangre de Cristo Grant, on left bank 0.4 mi (0.6 km) downstream from old State Highway 3, 0.5 mi (0.8 km) upstream from New Mexico-Colorado State line, 0.9 mi (1.4 km) south of Garcia, and at mile 13.3 (21.4 km).

DRAINAGE AREA.—200 mi² (520 km²), approximately.

PERIOD OF RECORD.—June 1944 to current year (no winter records).

GAGE.—Water-stage recorder. Concrete control since Oct. 9, 1956. Altitude of gage is 7,758 ft (2,365 m), from topographic map. Prior to Apr. 20, 1950, at site 0.4 mi (0.6 km) downstream at different datum.

REMARKS.—Records fair. Flow partly regulated by Costilla Reservoir (station 08253900) 22 mi (35 km) upstream. Diversions above station for irrigation of about 5,500 acres (22 km²), 2,000 acres (8.1 km²) of which are below station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 460 ft³/s (13.0 m³/s) July 24, 1957, gage height, 4.76 ft (1.451 m); no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.—A major flood occurred in 1886, from information by local residents. Flood of May 11, 1942, probably reached a discharge of 1,000 ft³/s (28 m³/s).

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 410 ft³/s (11.6 m³/s) May 26, June 9, gage height, 4.48 ft (1.366 m); no flow for several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.25					---	19	61	208	125	20	2.5
2	---					---	3.5	66	227	166	19	2.2
3	---					---	.00	70	180	167	18	1.8
4	---					---	.00	68	156	167	18	.66
5	---					---	.00	56	138	107	4.8	1.1
6	---					---	.00	66	135	43	2.8	1.1
7	---					---	.00	80	128	52	1.7	10
8	---					---	.00	97	183	45	4.0	11
9	---					---	.00	132	351	39	5.9	2.0
10	---					---	.00	128	233	35	5.0	2.2
11	---					---	.00	105	191	22	21	.14
12	---					---	.00	74	149	18	9.4	.00
13	---					---	.22	41	130	23	7.9	.02
14	---					---	.61	46	134	38	6.8	.46
15	---					---	1.7	47	174	24	15	2.9
16	---					---	8.9	22	180	8.2	11	3.0
17	---					---	17	65	161	4.2	3.7	1.5
18	---					---	51	80	170	5.2	5.7	.00
19	---					---	90	122	175	6.9	8.6	.17
20	---					---	75	142	170	7.3	5.6	.00
21	---					---	68	211	162	8.6	4.4	7.4
22	---					---	85	189	137	7.7	4.1	13
23	---					---	120	175	116	5.4	3.7	.62
24	---					---	132	179	120	4.4	12	.07
25	---					---	99	259	137	8.2	17	.00
26	---					---	86	374	118	8.2	4.5	.00
27	---					---	81	369	114	16	3.9	.00
28	---					---	83	322	118	28	3.4	.00
29	---					---	75	317	120	8.9	3.0	5.1
30	---					---	66	270	125	8.2	2.8	6.9
31	---					22	---	227	---	13	2.9	---
TOTAL	---					---	1161.93	4460	4840	1219.4	255.6	75.84
MEAN	---					---	38.7	144	161	39.3	8.25	2.53
MAX	---					---	132	374	351	167	21	13
MIN	---					---	.00	22	114	4.2	1.7	.00
AC-FT	---					---	2300	8850	9600	2420	507	150

PRINCIPAL DIVERSIONS FROM COSTILLA CREEK, NEW MEXICO-COLORADO

Records of discharge are collected at 8 gaging stations on 3 diversions from Costilla Creek. Water diverted is used for irrigation in the Sangre de Cristo Grant in New Mexico and Colorado below the gaging station on Costilla Creek near Costilla, NM (station 08255500). Records collected during irrigation season only. Several observations of water temperature were made at each site during the year.

08256000 ACEQUIA MADRE AT COSTILLA, NM.--Lat 36°58'03", long 105°30'57", Taos County, Hydrologic Unit 13020101, 275 ft (84 m) downstream from diversion dam, and 1.2 mi (1.9 km) southeast of the intersection of State Highways 3 and 196 at Costilla. PERIOD OF RECORD, May 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,870 ft (2,399 m), from topographic map. Acequia diverts from right bank of Costilla Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 50 ft³/s (1.42 m³/s) June 25, 1944, July 31, 1945; no flow at times.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 33 ft³/s (0.93 m³/s) May 22; no flow Mar. 30,31, Apr. 7,8, May 10,11.

08256500 MESA DITCH NEAR GARCIA, CO.--Lat 36°59'50", long 105°30'49", Costilla County, Hydrologic Unit 13020101, 429 ft (130 m) north of milepost No. 136 + 54 on New Mexico-Colorado State line, and 1.4 mi (2.3 km) east of Garcia. PERIOD OF RECORD, June 1944 to September 1965, May 1969 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,780 ft (2,371 m), from topographic map. Prior to June 1971, recording gage and June 1971 to April 1977, nonrecording gage near present site at different datums. Ditch diverts from right bank of Acequia Madre for irrigation in Colorado.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 21 ft³/s (0.59 m³/s) June 25, 1944, Aug. 3, 7, 1945; no flow at times.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 0.22 ft³/s (0.006 m³/s) May 18; no flow most of time.

08257500 CORDILLERA DITCH AT GARCIA, CO.--Lat 36°59'41", long 105°31'39", Taos County, Hydrologic Unit 13020101, 570 ft (170 m) south of New Mexico-Colorado State line, and 0.9 mi (1.4 km) southeast of Garcia. PERIOD OF RECORD, June 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,750 ft (2,362 m), from topographic map. Ditch diverts from left bank of Acequia Madre for irrigation in Colorado.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 10 ft³/s (0.28 m³/s) June 13, 15, July 11, 1961; no flow at times.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 4.5 ft³/s (0.13 m³/s) May 13; no flow many days.

08258000 CERRO CANAL AT COSTILLA, NM.--Lat 36°57'56", long 105°31'07", Taos County, Hydrologic Unit 13020101, 1,400 ft (430 m) downstream from diversion dam, and 1.2 mi (1.9 km) southeast of the intersection of State Highways 3 and 196 at Costilla. PERIOD OF RECORD, April 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,870 ft (2,399 m), from topographic map. Canal diverts from left bank of Costilla Creek.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 135 ft³/s (3.82 m³/s) Aug. 5, 6, 1970; no flow at times.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 128 ft³/s (3.62 m³/s) Aug. 7; no flow Mar. 29 to Apr. 1, July 4.

08258600 CERRO CANAL BELOW ASSOCIATION DITCH AT COSTILLA, NM.--Lat 36°57'41", long 105°32'05", Taos County, Hydrologic Unit 13020101, 220 ft (67 m) downstream from Association ditch, and 1.2 mi (1.9 km) south of the intersection of State Highways 3 and 196 at Costilla. PERIOD OF RECORD, May 1972 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,820 ft (2,384 m), from topographic map.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 81 ft³/s (2.29 m³/s) July 18, 19, 1973; no flow at times.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 72 ft³/s (2.04 m³/s) May 16; no flow Mar. 29 to Apr. 1.

08259500 NEW MEXICO BRANCH CERRO CANAL NEAR JAROSO, CO.--Lat 36°59'37", long 105°34'28", Taos County, Hydrologic Unit 13020101, 45 ft (14 m) downstream from headgate, and 2.7 mi (4.3 km) east of Jaroso. PERIOD OF RECORD, June 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,680 ft (2,341 m), from topographic map. Canal diverts from left bank of Cerro Canal for irrigation in New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 29 ft³/s (0.82 m³/s) July 21, 1948; no flow at times.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 11 ft³/s (0.31 m³/s) Aug. 14; no flow several days.

08259600 CERRO CANAL AT STATE LINE NEAR JAROSO, CO.--Lat 36°59'41", long 105°34'36", Taos County, Hydrologic Unit 13020101, 780 ft (240 m) downstream from head of N. Mex. branch Cerro Canal, and 2.7 mi (4.3 km) east of Jaroso. PERIOD OF RECORD, April 1973 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,680 ft (2,341 m), from topographic map. Flow measured is delivered to Colorado.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 68 ft³/s (1.93 m³/s) July 18, 19, 1973; no flow at times.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 59 ft³/s (1.67 m³/s) May 16, July 6; no flow Mar. 27 to Apr. 2.

08262000 EASTDALE NO. 1 INTAKE CANAL NEAR JAROSO, CO.--Lat 37°02'25", long 105°36'18", Costilla County, Hydrologic Unit 13020101, 750 ft (230 m) downstream from headgate, and 2.8 mi (4.5 km) north of Jaroso. PERIOD OF RECORD, June 1944 to current year. GAGE, water-stage recorder and Parshall flume. Altitude of gage is 7,585 ft (2,312 m), from topographic map. Canal diverts from right bank of Costilla Creek to Eastdale Reservoir No. 1 for irrigation in Colorado.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 112 ft³/s (3.17 m³/s) May 16, 1958; no flow for long periods.
EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 82 ft³/s (2.32 m³/s) Apr. 20; no flow for long periods.

MONTHLY DIVERSIONS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

	08256000 Acequia Madre	08256500 Mesa ditch	08257500 Cordillera ditch	08258000 Cerro Canal at Costilla	08258600 Cerro Canal below Association ditch	08259500 New Mexico branch Cerro Canal	08259600 Cerro Canal at State line nr Jaroso	08262000 Eastdale No. 1 intake canal
October	-	-	-	-	-	-	-	0
November	-	-	-	-	-	-	-	0
December	-	-	-	-	-	-	-	-
January	-	-	-	-	-	-	-	-
February	-	-	-	-	-	-	-	-
March	-	-	-	-	-	-	-	0
April	91	0	5.6	1,870	1,700	4.4	1,510	1,820
May	607	.7	33	2,820	2,010	110	1,680	2,790
June	908	.3	72	4,520	1,840	289	1,420	1,620
July	871	.9	28	4,790	2,290	324	1,880	940
August	1,010	0	31	4,430	2,040	258	1,660	171
September	705	0	59	1,960	1,530	153	1,290	38

08263500 RIO GRANDE NEAR CERRO, NM

LOCATION.--Lat 36°44'24", long 105°40'59", in NW¼NE¼ sec. 20, T.29 N., R.12 E., Taos County, Hydrologic Unit 13020101, on left bank 4 mi (6 km) southwest of Cerro, 5.5 mi (8.8 km) northwest of Questa, 7.4 mi (11.9 km) upstream from Red River, and at mile 1,693.1 (2,724.2 km).

DRAINAGE AREA.--8,440 mi² (21,860 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1948 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,110 ft (2,167 m), from topographic map.

REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 620,000 acres (2,500 km²) in Colorado and 7,000 acres (28 km²) in New Mexico.

AVERAGE DISCHARGE.--31 years, 388 ft³/s (10.99 m³/s), 281,100 acre-ft/yr (347 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,740 ft³/s (276 m³/s) June 22, 1949, gage height, 15.78 ft (4.810 m); minimum, about 40 ft³/s (1.13 m³/s) Sept. 10, 11, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 17	0030	1540	43.6	7.53	2.295	June 11	0100	*5110	145	12.24	3.731
May 9	0200	2220	62.9	8.82	2.688						

Minimum discharge, 78 ft³/s (2.21 m³/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	123	319	184	210	220	278	560	1430	4180	2910	1150	240
2	123	274	248	207	220	280	540	1390	4110	2780	1080	230
3	122	275	174	179	220	285	520	1430	3940	2770	996	220
4	120	282	234	186	210	291	480	1650	3510	2820	921	200
5	117	284	200	186	210	282	460	1720	3340	2700	835	180
6	117	287	242	187	210	273	430	1650	3420	2560	773	170
7	118	302	133	186	210	300	440	1810	3480	2570	724	160
8	125	306	100	187	220	333	460	2050	3610	2560	681	150
9	122	297	90	183	220	379	500	2110	4190	2500	674	140
10	119	284	130	182	220	352	568	1930	4830	2520	650	130
11	118	280	172	184	220	352	660	1580	4940	2530	686	120
12	117	284	173	187	220	393	699	1410	4420	2290	767	110
13	116	284	164	189	220	459	663	1230	3720	2160	744	100
14	116	290	172	180	218	513	615	1100	3410	2010	724	96
15	119	328	188	190	219	604	575	1070	3600	1840	813	100
16	124	338	202	189	218	725	559	1200	3990	1650	818	100
17	159	299	198	198	213	961	671	1610	4270	1650	857	94
18	282	285	198	204	216	700	841	1730	4270	1880	937	88
19	365	284	206	204	232	620	1060	1680	3940	1920	986	84
20	427	272	210	199	231	580	1230	1800	3530	1970	880	82
21	484	267	214	208	224	600	1340	2170	3230	1960	802	81
22	525	265	214	210	239	580	1320	2540	3120	1880	764	81
23	533	263	210	213	244	580	1370	2540	3050	1770	720	82
24	555	270	208	210	254	580	1480	2660	3010	1660	689	83
25	550	299	203	220	262	600	1600	2840	3090	1570	645	82
26	466	299	203	220	264	640	1560	3070	3180	1440	587	82
27	417	299	202	220	271	670	1470	3220	3250	1320	559	81
28	416	282	198	220	278	620	1400	3300	3170	1290	474	81
29	395	226	202	220	---	600	1350	3380	3100	1230	390	80
30	371	194	203	220	---	600	1420	3670	3020	1180	320	79
31	360	---	203	210	---	590	---	3950	---	1160	260	---
TOTAL	8221	8518	5878	6188	6403	15620	26841	64920	109920	63050	22906	3606
MEAN	265	284	190	200	229	504	895	2094	3664	2034	739	120
MAX	555	338	248	220	278	961	1600	3950	4940	2910	1150	240
MIN	116	194	90	179	210	273	430	1070	3010	1160	260	79
AC-FT	16310	16900	11660	12270	12700	30980	53240	128800	218000	125100	45430	7150

CAL YR 1978 TOTAL 99451 MEAN 272 MAX 870 MIN 71 AC-FT 197300
WTR YR 1979 TOTAL 342071 MEAN 937 MAX 4940 MIN 79 AC-FT 678500

08263500 RIO GRANDE NEAR CERRO, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977, 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 18...	1350	289	281	8.4	--	13.0	16	7.6	89	0	27	5.3
NOV												
JAN 17...	1430	208	190	8.7	5.0	3.0	1.6	10.8	74	0	23	4.0
MAR 21...	1015	600	200	7.9	6.5	3.0	10	9.4	72	6	22	4.1
APR 25...	1300	1650	115	8.1	20.0	12.0	34	8.0	49	1	15	2.8
MAY 23...	0935	2540	110	8.0	15.0	14.0	50	12.4	42	0	13	2.4
JUN 20...	1345	3590	160	8.0	21.0	16.5	22	8.4	54	1	16	3.3
JUL 24...	1320	1650	85	8.0	--	22.0	13	7.2	37	0	11	2.2
*AUG 29...	0945	395	160	8.4	--	12.0	6.6	8.0	52	0	16	3.0
*SEP 26...	1500	81	340	8.9	19.0	15.0	1.5	10.0	110	0	32	7.0

* Dip or grab sample

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT 18...	24	1.1	4.3	120	0	98	40	5.5	.4	25	191
NOV 15...	--	--	--	104	4	92	--	--	--	--	--
JAN 17...	13	.7	3.2	86	6	81	22	3.4	.3	32	150
MAR 21...	--	--	--	80	0	66	--	--	--	--	--
APR 25...	7.5	.5	2.6	58	0	48	16	2.4	.2	24	100
MAY 23...	7.7	.5	3.0	56	0	46	15	2.2	.2	21	93
JUN 20...	--	--	--	64	0	52	--	--	--	--	--
JUL 24...	--	--	--	72	0	59	--	--	--	--	--
AUG 29...	9.9	.6	2.5	74	0	61	18	2.6	.2	23	112
SEP 26...	--	--	--	120	10	120	--	--	--	--	--

08263500 RIO GRANDE NEAR CERRO, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 18...	.02	.07	.01	.67	.70	.040	.02	30	5	6.5	.00
NOV 15...	.04	.05	.00	.29	.33	.070	.02	--	--	2.3	.00
JAN 17...	.23	.19	.02	.10	.35	.070	.03	110	10	2.0	.00
MAR 21...	.30	.30	.09	.43	.82	.130	.07	--	--	--	.00
APR 25...	.18	--	.05	.74	.97	.210	.09	120	170	9.3	.00
MAY 23...	.04	.08	.01	.93	.98	.210	.07	150	20	--	--
JUN 20...	.02	.00	.03	.86	.91	.180	.10	--	--	7.8	.00
JUL 24...	.02	.05	.01	.94	.97	.100	.05	--	--	4.8	.00
AUG 29...	.04	.13	.03	.40	.47	.130	.05	30	10	3.2	.00
SEP 26...	.05	.06	.04	.79	.88	.040	.01	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT 18...	1350	--	<10	30	5	0	1	20	10
NOV 15...	1045	--	--	--	--	2	--	10	--
JAN 17...	1430	--	<10	110	10	1	0	10	<3
MAR 21...	1015	--	--	--	--	2	--	50	--
APR 25...	1300	--	<10	120	170	0	<10	70	40
MAY 23...	0935	0	0	150	20	20	0	50	10
JUN 20...	1345	<1	--	--	--	1	--	30	--
JUL 24...	1320	<1	--	--	--	0	--	40	--
AUG 29...	0945	<1	<10	30	10	0	<10	--	<3
SEP 26...	1500	<1	--	--	--	3	--	20	--

08263500 RIO GRANDE NEAR CERRO, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT		
18...	1350	52
NOV		
15...	1045	0
JAN		
17...	1430	2
MAR		
21...	1015	0
APR		
25...	1300	0
MAY		
23...	0935	57
JUN		
20...	1345	24
JUL		
24...	1320	10

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT					
18...	1350	289	13.0	63	49
NOV					
15...	1045	323	3.0	14	12
MAR					
21...	1015	600	3.0	32	52
APR					
25...	1300	1650	12.0	181	806
JUL					
24...	1320	1650	22.0	38	169
AUG					
29...	0945	395	12.0	26	28
SEP					
26...	1500	81	15.0	8	1.7

08263510 RIO GRANDE ABOVE RED RIVER CONFLUENCE NEAR CERRO, NM

LOCATION.--Lat 36° 39' 14", long 105° 41' 28", in NW¼ NW¼ sec. 20, T.28N., R.12E., Taos County, Hydrologic Unit 13020101, 0.5 mi (0.8 Km) upstream from mouth of Red River, 3.0 mi (4.8 Km) southwest of Red River State Fish Hatchery, and 6.4 mi (10.3 Km) southwest of Questa.

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--October 1978 to September 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT 18...	1100	290	280	8.4	19.0	13.0	6.5	7.7	87	0	26	5.4
*JAN 17...	1130	E220	210	8.6	4.0	5.0	1.4	10.7	68	0	20	4.4
APR 25...	1045	E1650	130	8.1	20.0	11.0	36	8.2	55	7	17	3.0
*MAY 22...	1015	E2600	100	8.0	16.0	13.0	80	8.0	43	8	13	2.5
*JUN 20...	1050	E3700	166	7.9	19.0	16.5	22	7.8	56	4	17	3.4
AUG 28...	1515	400	160	8.1	--	17.5	3.8	7.8	54	0	16	3.5
SEP 26...	1115	90	280	8.5	18.0	14.0	.90	9.6	87	0	25	6.0

* Dip or grab sample

DATE	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 18...	124	0	102	.15	.17	.00	.82	.97	.140	--	4.9	.00
JAN 17...	98	10	97	.38	.38	.02	.11	.51	.040	.00	1.4	.00
APR 25...	58	0	48	.21	.24	.03	.68	.92	.210	.02	9.8	.00
MAY 22...	42	0	34	.13	.16	.13	1.6	1.8	.240	.05	--	--
JUN 20...	64	0	52	.02	.00	.01	.71	.74	.190	.05	8.3	.00
AUG 28...	--	--	--	.05	.04	.05	.47	.57	.150	.07	5.6	.00
SEP 26...	110	8	100	.08	.21	.00	.36	.44	.020	.01	3.4	.00

08263510 RIO GRANDE ABOVE RED RIVER CONFLUENCE NEAR CERRO, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)
OCT				
18...	1100	--	1	30
JAN				
17...	1130	--	1	10
APR				
25...	1045	--	0	50
MAY				
22...	1015	--	2	70
JUN				
20...	1050	--	2	40
AUG				
28...	1515	2	0	--
SEP				
26...	1115	<1	3	20

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT		
18...	1100	5
JAN		
17...	1130	0
APR		
25...	1045	0
MAY		
22...	1015	76
JUN		
20...	1050	25

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT					
18...	1105	290	13.0	46	36
JAN					
17...	1130	E220	5.0	2	1.2
MAY					
22...	1015	E2600	13.0	216	1520
JUN					
20...	1050	E3700	16.5	86	86

08264500 RED RIVER BELOW ZWERGLE DAM SITE NEAR RED RIVER, NM

LOCATION.--Lat 36° 40' 25", long 105° 22' 46", in Taos County Hydrologic Unit 13020101, in Carson National Forest, 2,000 ft (610 m) upstream from Goose Creek 1.9 mi (3.1 Km) downstream from Bear Canyon and 2.8 mi (4.5 Km) southeast of Red River.

DRAINAGE AREA.--28.9 mi^2 (74.9 Km^2).

PERIOD OF RECORD.--Water years 1962-65, 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 17...	1245	5.7	193	8.6	16.0	8.5	.20	8.4	93	--	30	4.5
NOV 14...	1240	6.8	187	8.2	.0	2.0	.00	12.6	91	6	29	4.4
JAN 16...	1315	7.0	195	8.2	1.0	1.0	.20	10.7	95	5	30	4.9
MAR 20...	1315	7.0	170	8.9	3.5	4.0	2.3	8.4	92	0	29	4.8
APR 26...	1110	38	144	8.1	10.0	3.0	5.1	9.0	64	0	20	3.5
MAY 22...	1345	96	140	8.1	13.0	5.0	7.5	8.2	63	22	20	3.1
JUN 18...	1130	285	112	7.9	19.0	8.0	18	8.6	49	0	16	2.3
*AUG 29...	1120	23	170	8.1	16.0	9.0	2.9	8.4	81	4	27	3.4
SEP 27...	1220	16	160	8.1	14.0	7.0	.40	9.0	82	2	27	3.6

* Dip or grab sample

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT 17...	--	--	--	--	--	--	--	--	--	--	--
NOV 14...	--	--	--	104	0	85	--	--	--	--	--
JAN 16...	2.7	.1	.6	110	0	90	14	.7	.1	7.6	115
MAR 20...	--	--	--	110	4	97	--	--	--	--	--
APR 26...	2.6	.1	.7	80	0	66	11	1.2	.1	9.7	89
MAY 22...	2.1	.1	.9	50	0	41	9.4	.8	.2	7.8	122
JUN 18...	--	--	--	62	0	51	--	--	--	--	--
AUG 29...	2.1	.1	.8	94	0	77	15	.6	.1	7.1	103
SEP 27...	--	--	--	98	0	80	--	--	--	--	--

08264500 RED RIVER BELOW ZWERGLE DAM SITE NEAR RED RIVER, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 17...	.05	.04	.00	.07	.12	.000	--	--	--	.8	.00
NOV 14...	.07	.20	.00	.15	.22	.000	.01	--	--	.9	.00
JAN 16...	.11	.12	.00	.10	.21	.010	.00	0	<1	.5	.00
MAR 20...	.09	.11	.01	.22	.32	.010	.01	--	--	.6	.00
APR 26...	.29	.25	.01	.13	.43	.020	.01	20	2	3.2	.00
MAY 22...	.08	12	.03	.29	.40	.020	.01	10	10	--	--
JUN 18...	.08	.11	.01	.74	.83	.030	.03	--	--	7.0	.00
AUG 29...	.05	.05	.03	.08	.16	.060	.01	10	10	1.4	.00
SEP 27...	.05	.05	.00	.26	.31	.000	.00	--	--	1.2	.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT 17...	1245	--	--	--	--	0	--	20	--
NOV 14...	1240	--	--	--	--	2	--	10	--
JAN 16...	1315	--	<10	0	<1	2	0	10	<3
MAR 20...	1315	--	--	--	--	1	--	30	--
APR 26...	1110	<1	<10	20	2	10	<10	20	<3
MAY 22...	1345	0	0	10	10	0	0	40	20
JUN 18...	1130	<1	--	--	--	0	--	20	--
JUL 14...	1105	<1	--	--	--	0	--	30	--
AUG 29...	1120	<1	<10	10	10	0	<10	0	<3
SEP 27...	1220	<1	--	--	--	0	--	10	--

08264500 RED RIVER BELOW ZWERGLE DAM SITE NEAR RED RIVER, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT		
17...	1245	0
NOV		
14...	1240	4
JAN		
16...	1315	0
MAR		
20...	1315	0
APR		
26...	1110	1
MAY		
22...	1345	2
JUN		
18...	1130	0

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT					
17...	1320	5.7	8.5	2	.03
NOV					
14...	1240	6.8	2.0	5	.09
JAN					
16...	1315	7.0	1.0	3	.06
APR					
26...	1110	38	3.0	211	22
MAY					
22...	1345	96	5.0	38	9.8
JUN					
18...	1130	285	8.0	181	139
JUL					
24...	1105	57	8.0	5	.77
AUG					
29...	1120	23	9.0	8	.50
SEP					
27...	1220	16	7.0	2	.09

08264970 RED RIVER AT MOLYCORPS MINE NEAR RED RIVER, NM

LOCATION.--Lat 36° 41' 57", long 105° 28' 44", in SE¼ SE¼ sec 31, T.29N., R.14E., Taos County, Hydrologic Unit 13020101, in Carson National Forest, 0.8 mi (1.3 Km) upstream from Molycorps Mine and 4.0 mi (6.4 Km) east of Red River.

DRAINAGE AREA.--78.3 mi^2 (203 Km^2).

PERIOD OF RECORD.--October 1978 to September 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT												
17...	1050	7.8	264	8.1	16.0	5.5	1.9	12.4	120	--	34	7.5
NOV												
14...	1100	7.8	274	8.2	2.0	3.5	2.5	11.7	120	58	36	7.9
JAN												
16...	1130	9.6	280	8.0	2.0	2.0	2.4	9.7	120	53	35	8.0
MAR												
20...	1220	8.0	260	8.4	4.0	4.0	6.6	9.0	120	53	36	8.1
APR												
26...	0945	105	130	7.8	9.0	3.0	3.3	9.4	63	25	18	4.3
MAY												
22...	1250	350	140	7.7	17.0	7.0	140	--	61	33	18	3.8
JUN												
18...	1315	300	132	7.9	20.0	10.0	37	9.2	57	10	18	3.0
JUL												
24...	1020	105	170	8.0	17.0	8.0	1.7	8.4	77	18	24	4.1
*AUG												
29...	1330	37	230	7.9	21.0	12.0	1.4	8.0	100	[illegible]	32	6.0
SEP												
27...	1130	21	230	7.2	14.0	7.0	1.6	7.2	110	55	34	6.7

* Dip or grab sample

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT											
17...	4.8	.2	1.2	--	--	58	66	2.1	.3	13	164
NOV											
14...	--	--	--	76	0	62	--	--	--	--	--
JAN											
16...	5.2	.2	1.1	82	0	67	67	2.4	.3	13	174
MAR											
20...	--	--	--	78	4	71	--	--	--	--	--
APR											
26...	3.9	.2	1.0	46	0	38	34	1.9	.2	13	102
MAY											
22...	3.1	.2	1.3	34	0	28	31	2.1	.3	11	90
JUN											
18...	--	--	--	58	0	48	--	--	--	--	--
JUL											
24...	--	--	--	72	0	59	--	--	--	--	--
AUG											
29...	3.6	.2	1.0	82	0	67	53	1.4	.2	11	149
SEP											
27...	--	--	--	70	0	57	--	--	--	--	--

08264970 RED RIVER AT MOLYCORPS MINE NEAR RED RIVER, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 17...	.03	.07	.00	.25	.28	.060	.00	10	140	2.5	.00
NOV 14...	.10	.23	.02	.21	.33	.040	.03	--	--	1.4	.00
JAN 16...	.23	.27	.58	.00	.58	.130	.01	0	160	1.9	.00
MAR 20...	.27	.27	.36	.14	.77	.060	.05	--	--	1.0	.00
APR 26...	.57	.57	.02	.35	.94	.210	.01	10	70	7.5	.00
MAY 22...	.14	.15	.06	.50	.70	.280	.03	2000	100	--	--
JUN 18...	.09	.18	.00	.68	.77	.110	.01	--	--	6.4	.00
JUL 24...	.07	.09	.02	.13	.22	.020	.00	--	--	4.4	.00
AUG 29...	.06	.08	.03	.07	.16	.040	.01	20	100	1.4	.00
SEP 27...	.10	.33	.04	.28	.42	.030	.00	--	--	--	.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	CADMIUM DISSOLVED (UG/L AS CD) (01025)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT 17...	1050	--	<10	10	140	1	2	40	30
NOV 14...	1100	--	--	--	--	0	--	80	--
JAN 16...	1130	--	<10	0	160	1	0	80	20
MAR 20...	1220	--	--	--	--	2	--	60	--
APR 26...	0945	<1	<10	10	70	1	<10	70	<3
MAY 22...	1250	0	0	2000	100	0	0	90	20
JUN 18...	1315	1	--	--	--	1	--	60	--
JUL 24...	1020	<1	--	--	--	0	--	50	--
AUG 29...	1330	1	<10	20	100	0	<10	30	<3
SEP 27...	1130	<1	--	--	--	1	--	50	--

08264970 RED RIVER AT MOLYCORPS MINE NEAR RED RIVER, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT		
17...	1050	3
NOV		
14...	1100	66
JAN		
16...	1130	1140
MAR		
20...	1220	510
APR		
26...	0945	4
MAY		
22...	1250	7
JUN		
18...	1315	404
JUL		
24...	1020	27

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT					
17...	1050	7.8	5.5	6	.13
NOV					
14...	1100	7.8	3.5	16	.34
JAN					
16...	1130	9.6	2.0	8	.21
MAR					
20...	1220	8.0	4.0	14	.30
APR					
26...	0945	105	3.0	196	56
MAY					
22...	1250	350	7.0	755	713
JUN					
18...	1315	300	10.0	289	234
JUL					
24...	1020	105	8.0	13	3.7
AUG					
29...	1330	37	12.0	10	1.0
SEP					
27...	1130	21	7.0	6	.35

08265000 RED RIVER NEAR QUESTA, NM

LOCATION.--Lat 36°42'12", long 105°34'04", in NE¼SE¼ sec.32, T.29 N., R.13 E. (projected), Taos County, Hydrologic Unit 13020101, in Carson National Forest, on left bank 1.3 mi (2.1 km) upstream from Cabresto Creek, 1.5 mi (2.4 km) east of Questa, and at mile 9.0 (14.5 km).

DRAINAGE AREA.--113 mi² (293 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April to October 1910 and January to September 1911 (gage heights and discharge measurements only), October 1912 to March 1924, May 1924 to September 1925, January to March 1926, September 1926 to current year. Monthly discharge only for some periods, published to WSP 1312. Published as Rio Colorado above Questa 1910-11, 1926-30, and as Rio Colorado near Questa 1912-25, 1930-48.

REVISED RECORDS.--WSP 808: 1935. WSP 1392: 1913, 1932, 1941, 1947-48. WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Wood or concrete control since Mar. 20, 1936. Datum of gage is 7,451.92 ft (2,271.345 m) National Geodetic Vertical Datum of 1929. See WSP 1923 for history of changes prior to Oct. 4, 1938.

REMARKS.--Water-discharge records good except those for winter period and those for May and June, which are poor. Diversions for irrigation of a few hundred acres above station. Figures of discharge do not include flow in South ditch which diverts from left bank 1,500 ft (460 m) upstream and bypasses gage for irrigation and stock water below.

Since January 1966 surface and ground water diversions by Molybdenum Corp. of America (Molycorp) refinery 5.5 mi (8.8 km) upstream bypass gage in tailings pipelines on left bank and discharge into settling pond 3 mi (5 km) downstream. Effluent from this pond enters Red River as surface water and is included in discharge at Red River below Fish Hatchery, near Questa (station 08266820).

See tabulation below for bypass flow of water.

AVERAGE DISCHARGE.--52 years (water years 1913-25, 1927-65), 55.9 ft³/s (1.583 m³/s), 40,500 acre-ft/yr (49.9 hm³/yr), prior to extensive upstream diversions by Molycorp; 14 years (water years 1966-79), 33.6 ft³/s (0.952 m³/s), 24,340 acre-ft/yr (30.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1929).--Maximum discharge, 886 ft³/s (25.1 m³/s) May 25, 1942, from rating curve extended above 450 ft³/s (13 m³/s): maximum gage height, 5.80 ft (1.768 m) June 8, 1979; minimum discharge, 1.5 ft³/s (0.042 m³/s) Nov. 23, 1957.

The maximum discharge of May 25, 1942, may have been equalled or exceeded by the peak of June 15, 1921.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft³/s (4.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 9	2000	197	5.58	3.55	1.082	June 8	2200	*709	20.1	5.80	1.768
May 27	a0100	a675	19.1	-	-						

Minimum discharge, 1.8 ft³/s (0.051 m³/s) Dec. 13, result of freezeup.

a About.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	9.6	8.4	4.8	5.0	6.6	12	126	480	325	86	41
2	8.0	9.9	8.8	4.0	6.0	6.8	9.2	126	460	335	83	40
3	8.1	12	6.5	4.5	6.6	6.5	12	127	440	312	78	40
4	7.8	17	4.3	5.0	6.5	6.3	10	118	420	278	76	39
5	7.3	14	5.3	5.0	6.4	6.9	11	119	400	249	73	38
6	7.2	12	5.3	5.0	6.2	7.5	12	139	381	227	71	36
7	6.5	12	4.8	5.0	6.0	8.9	14	157	419	223	70	33
8	7.6	12	3.5	4.9	5.8	8.5	18	167	528	208	69	30
9	7.1	11	2.7	5.0	5.4	8.1	23	181	557	200	74	31
10	6.5	11	2.5	5.5	5.8	7.7	22	174	510	191	78	30
11	7.0	11	2.5	5.5	5.5	8.7	20	160	481	184	78	31
12	7.4	14	3.5	6.0	5.2	9.8	19	134	439	175	70	32
13	7.4	11	4.6	6.1	5.9	9.7	17	121	481	167	65	29
14	8.7	11	5.0	5.5	6.3	10	21	127	484	162	71	32
15	9.2	11	5.0	6.5	6.6	11	27	126	475	159	85	32
16	8.2	9.2	5.0	6.8	6.1	12	37	149	459	154	80	31
17	8.1	7.3	5.5	6.9	6.7	14	53	161	412	152	75	31
18	7.6	8.9	6.0	7.4	6.1	14	81	182	372	154	70	28
19	8.6	8.3	6.0	8.1	7.6	12	99	250	372	143	65	27
20	7.9	8.9	5.5	7.2	7.6	11	100	300	330	135	63	27
21	10	9.1	4.0	5.3	7.4	11	100	400	305	126	59	29
22	13	10	3.7	8.5	8.1	11	106	380	300	122	55	27
23	12	8.9	4.2	6.9	7.8	11	125	378	298	118	54	26
24	12	9.3	4.2	5.1	8.3	10	139	400	314	114	51	26
25	12	13	4.3	8.4	7.1	10	145	420	362	111	49	26
26	11	10	4.4	9.2	8.3	11	131	500	347	107	50	25
27	12	9.8	4.5	6.8	8.6	12	130	550	325	103	49	25
28	11	8.0	4.7	5.2	7.2	14	131	540	333	103	48	24
29	11	7.6	4.8	5.0	---	14	134	530	330	99	46	24
30	11	8.7	5.1	5.0	---	12	130	520	323	95	45	24
31	11	---	5.2	4.5	---	13	---	500	---	91	43	---
TOTAL	280.2	315.5	149.8	184.6	186.1	315.0	1888.2	8262	12137	5322	2029	914
MEAN	9.04	10.5	4.83	5.95	6.65	10.2	62.9	267	405	172	65.5	30.5
MAX	13	17	8.8	9.2	8.6	14	145	550	557	335	86	41
MIN	6.5	7.3	2.5	4.0	5.0	6.3	9.2	118	298	91	43	24
AC-FT	556	626	297	366	369	625	3750	16390	24070	10560	4020	1810
(†)	552	573	552	461	536	501	575	510	448	483	522	566

CAL YR 1978 TOTAL 9111.2 MEAN 25.0 MAX 107 MIN 2.5 AC-FT 18070 † 6180
WTR YR 1979 TOTAL 31983.4 MEAN 87.6 MAX 557 MIN 2.5 AC-FT 63440 † 6280

† Bypass flow of water, in acre-feet, through tailings pipelines; records furnished by Molycorp.

08265000 RED RIVER NEAR QUESTA, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.—October 1978 to September 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT 17...	1000	7.6	278	7.7	11.5	5.0	3.4	19.0	--	--	--	--
NOV 14...	1355	9.6	257	7.8	1.0	1.0	6.0	12.9	110	2	34	6.2
JAN 16...	1000	6.8	250	7.8	2.5	2.0	8.2	10.1	130	96	42	7.0
*MAR 20...	1115	12	270	8.2	6.5	5.0	13	10.0	130	77	38	7.5
APR 26...	0835	131	150	7.6	7.0	3.0	99	8.2	81	40	25	4.6
MAY 23...	1250	359	150	7.7	16.0	1.0	150	8.4	64	26	20	3.4
JUN 18...	1415	354	147	7.9	24.0	12.0	140	8.8	60	13	19	3.1
JUL 24...	0940	117	190	8.0	16.5	8.0	2.5	8.0	87	31	27	4.7
*AUG 29...	1430	45	250	7.8	21.0	12.0	9.2	7.2	110	49	34	6.0
*SEP 25...	1600	24	240	7.7	27.5	12.0	5.7	8.2	110	63	35	6.5

*Dip or grab sample

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT 17...	--	--	--	--	--	--	--	--	--	--	--
NOV 14...	--	--	--	132	0	108	--	--	--	--	--
JAN 16...	4.3	.2	.9	46	0	38	95	1.8	.7	11	187
MAR 20...	--	--	--	60	0	49	--	--	--	--	--
APR 26...	3.4	.2	1.1	50	0	41	46	2.0	.4	12	122
MAY 23...	2.9	.2	1.2	46	0	38	29	1.4	.4	9.8	92
JUN 18...	--	--	--	58	0	48	--	--	--	--	--
JUL 24...	--	--	--	68	0	56	--	--	--	--	--
AUG 29...	3.7	.2	1.0	74	0	61	64	1.7	.5	10	158
SEP 25...	--	--	--	62	0	51	--	--	--	--	--

08265000 RED RIVER NEAR QUESTA, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 17...	.03	.03	.02	.18	.23	.040	.00	--	--	1.4	.00
NOV 14...	.11	--	.00	.13	.24	.010	--	--	--	.9	.00
JAN 16...	.19	.20	.18	.02	.39	.030	.00	120	480	.8	.00
MAR 20...	.17	.20	.08	.13	.38	.020	.35	--	--	1.5	.00
APR 26...	.49	.50	.01	.45	.95	.200	.01	10	250	6.8	.00
MAY 23...	.12	.15	.05	.60	.77	.360	.00	30	80	--	--
JUN 18...	.12	.11	.01	1.3	1.4	.300	.01	--	--	10	.00
JUL 24...	.15	.19	.01	.18	.34	.010	.01	--	--	2.8	.00
AUG 29...	.12	.12	.02	.18	.32	.110	.01	10	180	.9	.00
SEP 25...	.14	.15	.01	.45	.60	.020	.00	--	--	3.7	.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	CADMIUM DISSOLVED (UG/L AS CD) (01025)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT 17...	1000	--	<10	--	--	12	14	90	50
NOV 14...	1355	--	--	--	--	17	--	70	--
JAN 16...	1000	--	<10	120	480	10	9	130	100
MAR 20...	1115	--	--	--	--	8	--	120	--
APR 26...	0835	--	<10	10	250	10	<10	200	20
MAY 23...	1250	0	0	30	80	17	6	110	10
JUN 18...	1415	<1	--	--	--	9	--	180	--
JUL 24...	0940	<1	--	--	--	4	--	90	--
AUG 29...	1430	1	<10	10	180	8	12	90	<3
SEP 25...	1600	<1	--	--	--	6	--	60	--

08265000 RED RIVER NEAR QUESTA, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT		
17...	1000	6
NOV		
14...	1355	13
JAN		
16...	1000	0
MAR		
20...	1115	8
APR		
26...	0835	0
MAY		
23...	1250	6
JUN		
18...	1415	280
JUL		
24...	0940	25

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT					
17...	1020	7.6	5.0	13	.27
NOV					
14...	1355	9.6	1.0	20	.52
JAN					
16...	1000	6.8	2.0	20	.37
MAR					
20...	1115	12	5.0	27	.87
APR					
26...	0835	131	3.0	554	196
MAY					
23...	1250	359	1.0	1370	1330
JUN					
18...	1415	354	12.0	1160	1110
JUL					
24...	0940	117	8.0	12	3.8
AUG					
29...	1430	45	12.0	66	8.0
SEP					
25...	1600	24	12.0	16	1.0

08266000 CABRESTO CREEK NEAR QUESTA, NM

LOCATION.--Lat 36°43'50", long 105°33'12", in SE¼SE¼ sec.21, T.29 N., R.13 E., Taos County, Hydrologic Unit 13020101, in Carson National Forest, on right bank 900 ft (270 m) downstream from Llano ditch heading, 2.6 mi (4.2 km) downstream from Lake Fork, 3 mi (5 km) northeast of Questa, and at mile 3.5 (5.6 km).

DRAINAGE AREA.--36.7 mi^2 (95.1 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1943 to current year.

REVISED RECORDS.--WSP 1712: Drainage area.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,845 ft (2,391 m), from river-profile map.

REMARKS.--Water-discharge records good except those for May and June, which are poor. Llano ditch (station 08265500), the only diversion above station, diverts from right bank 900 ft (270 m) above gage for irrigation of about 800 acres (3.2 km^2) below. See tabulation below for monthly diversion of Llano ditch (records of daily discharge available in District files). Flow regulated by Cabresto Reservoir (capacity, 732 acre-feet or 903,000 m^3, after reconstruction in 1928) on Lake Fork 1 mi (2 km) above mouth. Present capacity of Cabresto Reservoir is 1,100 acre-feet (1.36 hm^3) after further rehabilitation between 1959 and 1961.

AVERAGE DISCHARGE.--36 years, 9.61 ft^3/s (0.272 m^3/s), 6,960 acre-ft/yr (8.58 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 176 ft^3/s (4.98 m^3/s) June 8, 1957, gage height, 4.44 ft (1.353 m); maximum gage height, 4.53 ft (1.381 m) May 29, 1979; minimum discharge, 0.44 ft^3/s (0.012 m^3/s) Dec. 2, 1950, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 25, 1942, may have exceeded the maximum of record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 171 ft^3/s (4.84 m^3/s) May 29, gage height, 4.53 ft (1.381 m); minimum, 0.55 ft^3/s (0.016 m^3/s) Dec. 4, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.3	3.1	4.0	1.5	4.4	4.0	5.2	38	130	55	19	11
2	3.1	3.1	4.0	1.2	4.5	4.3	3.9	41	125	54	18	11
3	3.1	3.5	3.1	3.9	4.4	4.2	4.7	44	120	53	18	10
4	3.1	3.9	1.1	4.4	4.4	3.9	4.2	41	115	50	16	10
5	3.1	3.9	2.6	4.2	4.4	3.2	4.7	43	112	47	14	9.9
6	3.1	3.8	2.1	4.1	4.4	3.6	5.2	55	111	48	14	10
7	3.1	3.7	1.2	4.1	4.4	4.2	6.0	65	115	43	13	11
8	3.1	3.6	1.1	4.0	4.4	4.5	7.0	70	128	36	13	12
9	3.0	3.6	1.0	4.0	4.4	4.6	9.1	65	129	35	13	11
10	3.0	3.6	1.0	4.2	4.4	4.0	9.0	57	114	34	13	11
11	3.0	3.8	1.5	4.2	4.4	4.0	7.5	49	109	33	13	11
12	2.9	4.2	2.6	4.2	4.4	4.6	7.1	43	107	28	13	11
13	2.9	3.7	4.2	4.3	4.4	4.8	6.8	42	112	26	12	11
14	3.0	4.0	4.3	3.8	4.4	5.2	8.6	44	112	25	14	11
15	2.9	4.0	4.3	4.4	4.4	5.3	10	52	113	25	17	11
16	2.8	3.5	4.1	4.4	4.4	5.3	12	59	107	24	16	11
17	2.8	2.5	4.2	4.3	4.4	5.5	15	70	97	16	14	11
18	2.8	2.3	4.7	4.2	3.9	4.9	20	90	90	11	13	10
19	2.8	2.6	4.7	4.2	4.2	4.7	26	103	83	15	13	9.9
20	2.9	3.1	4.1	3.6	4.5	5.0	26	112	79	15	13	10
21	3.2	3.7	2.8	3.0	4.4	5.1	26	130	71	16	13	11
22	3.6	3.9	3.6	3.9	4.5	4.7	30	117	69	17	13	10
23	3.5	3.7	4.3	3.5	4.5	4.6	34	123	69	15	12	10
24	3.8	4.0	4.0	2.7	4.4	4.4	38	130	66	14	12	10
25	4.6	4.6	4.1	4.1	3.6	4.6	39	135	65	14	12	9.6
26	4.8	4.1	4.1	4.3	4.3	4.7	38	145	61	15	12	9.5
27	4.9	3.7	3.9	4.1	4.6	4.8	37	155	60	16	13	9.3
28	4.7	3.3	4.0	3.3	4.2	5.2	37	150	59	17	12	8.9
29	4.5	2.6	4.0	3.3	---	5.4	37	150	57	18	12	8.8
30	3.4	3.3	4.0	3.2	---	5.2	37	145	56	17	12	8.6
31	3.2	---	3.9	3.3	---	5.5	---	140	---	18	11	---
TOTAL	104.0	106.4	102.6	115.9	122.0	144.0	551.0	2703	2841	850	423	309.5
MEAN	3.35	3.55	3.31	3.74	4.36	4.65	18.4	87.2	94.7	27.4	13.6	10.3
MAX	4.9	4.6	4.7	4.4	4.6	5.5	39	155	130	55	19	12
MIN	2.8	2.3	1.0	1.2	3.6	3.2	3.9	38	56	11	11	8.6
AC-FT	206	211	204	230	242	286	1090	5360	5640	1690	839	614
(†)	0	-	-	-	-	-	0	42	430	618	342	0

CAL YR 1978 TOTAL 2561.4 MEAN 7.02 MAX 31 MIN 1.0 AC-FT 5080
WTR YR 1979 TOTAL 8372.4 MEAN 22.9 MAX 155 MIN 1.0 AC-FT 16610

† Diversion, in acre-feet, by Llano ditch.

08266000 CABRESTO CREEK NEAR QUESTA, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1978 to September 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT 17...	1410	2.8	164	8.1	20.0	10.0	.40	8.3	72	--	23	3.6
JAN 16...	1440	4.4	160	8.0	4.0	3.0	.40	10.3	67	15	21	3.6
APR 26...	1300	37	110	7.7	12.0	5.0	8.4	10.0	48	10	15	2.6
MAY 23...	1150	122	95	7.9	16.0	6.0	30	8.2	39	9	12	2.1
JUN 18...	1000	90	91	7.4	19.0	9.0	.50	10.8	38	2	12	2.0
*AUG 29...	1510	11	130	7.8	21.0	11.0	.60	7.8	63	12	20	3.1
*SEP 25...	1515	9.4	130	7.9	26.0	10.0	.50	8.2	62	16	20	3.0

*Dip or grab sample

DATE	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 17...	--	--	--	.01	.00	.01	.07	.09	.000	--	1.6	.00
JAN 16...	64	0	52	.03	.04	.00	.16	.19	.020	.00	.7	.00
APR 26...	46	0	38	.19	.21	.01	.14	.34	.020	.01	4.6	.00
MAY 23...	36	0	30	.07	.09	.05	.28	.40	.070	.01	--	--
JUN 18...	44	0	36	.05	.07	.01	.85	.91	.020	.01	3.5	.00
AUG 29...	62	0	51	.03	.03	.01	.14	.18	.010	.01	.1	--
SEP 25...	56	0	46	.03	.32	.04	.25	.32	.010	.00	--	.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	CADMIUM DISSOLVED (UG/L AS CD) (01025)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)
OCT 17...	1410	--	1	10
JAN 16...	1440	--	0	10
APR 26...	1300	<1	0	20
MAY 23...	1150	--	4	30
JUN 18...	1000	2	0	30
AUG 29...	1510	2	0	0
SEP 25...	1515	<1	0	20

08266000 CABRESTO CREEK NEAR QUESTA, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT		
17...	1410	0
JAN		
16...	1440	0
APR		
26...	1300	0
MAY		
23...	1150	0
JUN		
18...	1000	2

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT					
17...	1440	2.8	8.0	4	.03
APR					
26...	1300	37	5.0	30	3.0
MAY					
23...	1150	122	6.0	288	95
JUN					
18...	1000	90	9.0	44	11
AUG					
29...	1510	11	11.0	4	.12
SEP					
25...	1515	9.4	10.0	3	.08

08266500 RED RIVER BELOW QUESTA, NM

LOCATION.--Lat 36° 41' 34", long 105° 36' 42", SW¼ NE¼ sec. 1, T.28N., R.12E., Taos County, Hydrologic Unit 13020101, at bridge on State Highway 3, 1.3 mi (2.1 Km) southwest of Questa.

DRAINAGE AREA.--160 mi^2 (414 Km^2).

PERIOD OF RECORD.--October 1978 to September 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT 17...	0820	8.1	296	7.7	8.0	7.0	2.0	11.0	130	63	41	7.4
NOV 14...	1515	8.7	280	8.3	1.0	1.0	3.4	12.8	130	14	40	7.0
JAN 16...	0830	9.0	230	7.9	4.0	3.5	4.5	10.0	120	66	36	6.6
*MAR 21...	1130	10	260	7.8	6.0	6.0	11	7.8	120	69	38	6.9
APR 19...	1310	140	--	--	--	8.0	18	8.0	110	62	33	5.9
* 26...	1345	200	170	7.5	12.0	6.0	230	8.4	75	37	22	4.8
MAY 23...	1330	480	135	7.7	16.0	8.0	180	7.8	60	24	19	3.1
JUN 18...	1515	400	145	7.9	25.0	13.0	180	8.8	60	11	19	3.1
JUL 24...	0845	140	210	7.4	--	9.0	1.0	8.4	91	28	28	5.0
*AUG 30...	1015	60	240	7.8	15.0	9.0	2.3	8.2	120	51	36	6.5
SEP 27...	1030	19	260	7.4	12.0	12.0	3.9	7.6	120	60	36	6.7

* Dip or grab sample

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT 17...	--	--	--	82	0	67	--	--	--	--	--
NOV 14...	--	--	--	142	0	116	--	--	--	--	--
JAN 16...	5.0	.2	.9	62	0	51	73	1.9	.7	12	167
MAR 21...	--	--	--	66	0	54	--	--	--	--	--
APR 19...	4.1	.2	1.4	--	--	45	68	2.6	.6	9.8	155
26...	4.0	.2	1.3	46	0	38	46	1.8	.5	13	118
MAY 23...	3.0	.2	1.3	44	0	36	29	1.0	.9	10	90
JUN 18...	--	--	--	60	0	49	--	--	--	--	--
JUL 24...	--	--	--	76	0	62	--	--	--	--	--
AUG 30...	4.4	.2	1.4	80	0	66	65	2.1	.5	12	168
SEP 27...	--	--	--	70	0	57	--	--	--	--	--

08266500 RED RIVER BELOW QUESTA, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT											
17...	.01	.02	.00	.15	.16	.010	.00	--	--	2.7	.00
NOV											
14...	.05	.18	.00	.26	.31	.020	.01	--	--	1.0	.00
JAN											
16...	.10	.11	.05	.00	.15	.030	.00	0	200	.6	.00
MAR											
21...	.24	.24	.06	.09	.39	.020	.01	--	--	1.5	.00
APR											
19...	.40	.38	.01	.99	1.4	1.40	.00	10	300	16	.02
26...	.40	.39	.02	1.3	1.7	.710	.01	30	290	21	.00
MAY											
23...	.11	.13	.09	.48	.68	.160	.00	30	60	--	--
JUN											
18...	.11	.14	.01	.81	.93	.340	.01	--	--	10	.00
JUL											
24...	.15	.18	.01	.12	.28	.010	.01	--	--	2.4	.00
AUG											
30...	.02	.13	.01	.15	.18	.020	.01	30	190	1.4	.00
SEP											
27...	.11	.15	.05	.33	.49	.010	.00	--	--	2.9	.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	CADMIUM DISSOLVED (UG/L AS CD) (01025)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT									
17...	0820	--	--	--	--	12	--	40	--
NOV									
14...	1515	--	--	--	--	21	--	50	--
JAN									
16...	0830	--	<10	0	200	7	7	60	30
MAR									
21...	1130	--	--	--	--	10	--	150	--
APR									
19...	1310	0	0	10	300	100	13	490	10
26...	1345	<1	<10	30	290	34	12	370	<3
MAY									
23...	1330	0	0	30	60	7	7	100	10
JUN									
18...	1515	1	--	--	--	9	--	120	--
JUL									
24...	0845	2	--	--	--	5	--	90	--
AUG									
30...	1015	1	<10	30	190	6	14	60	10
SEP									
27...	1030	<1	--	--	--	23	--	20	--

08266500 RED RIVER BELOW QUESTA, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT		
17...	0820	14
NOV		
14...	1515	14
JAN		
16...	0830	0
MAR		
21...	1130	0
APR		
26...	1345	0
MAY		
23...	1330	31
JUN		
18...	1515	440
JUL		
24...	0845	16

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT					
17...	0910	8.1	8.0	9	.20
NOV					
14...	1515	8.7	1.0	17	.40
JAN					
16...	0830	9.0	3.5	11	.27
MAR					
21...	1130	10	6.0	22	.59
APR					
19...	1310	140	8.0	1780	673
26...	1345	200	6.0	1550	837
MAY					
23...	1330	480	8.0	202	262
JUN					
18...	1515	400	13.0	1180	1270
JUL					
24...	0845	140	9.0	12	4.5
AUG					
30...	1015	60	9.0	17	2.8
SEP					
27...	1030	19	12.0	11	.57

08266790 RED RIVER ABOVE STATE FISH HATCHERY NEAR QUESTA, NM

LOCATION.--Lat 36° 41' 12", long 105° 38' 40", in SE¼ SE¼ sec. 3, T.28N., R.12E., Taos County, Hydrologic Unit 13020101, 0.5 mi (0.8 Km) upstream from Red River State Fish Hatchery and 3.0 mi (4.8 Km) southwest of Questa.

DRAINAGE AREA.--175 mi^2 (453 Km^2).

PERIOD OF RECORD.--October 1978 to September 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT 19...	0850	15	408	8.0	4.0	10.0	.60	8.0	160	66	48	9.0
NOV 13...	1410	19	393	8.5	8.0	9.0	1.0	7.9	160	81	50	8.8
JAN 18...	0955	21	850	8.2	3.0	6.0	4.3	9.2	380	310	130	13
MAR 19...	1430	22	390	8.5	10.0	9.0	7.0	8.4	160	0	49	9.0
APR 27...	0900	180	180	7.4	--	3.0	63	--	81	54	24	5.1
MAY 24...	0840	490	140	7.6	14.0	5.0	120	8.8	62	26	19	3.5
JUN 21...	0855	430	200	7.7	18.5	8.5	90	8.0	70	19	22	3.7
JUL 25...	0840	130	230	7.6	--	11.0	2.0	8.4	100	43	32	5.8
AUG 30...	0930	70	290	8.0	14.0	10.0	3.1	8.0	130	59	41	7.4
SEP 27...	0935	36	350	7.8	15.0	10.0	3.1	7.0	140	65	43	8.1

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 19...	18	.6	1.9	114	0	81	110	6.1	.9	21	272	.09
NOV 13...	--	--	--	92	2	79	--	--	--	--	--	.11
JAN 18...	26	.6	8.1	80	0	66	370	7.0	1.2	16	613	.11
MAR 19...	--	--	--	220	4	187	--	--	--	--	--	.18
APR 27...	5.3	.3	1.3	--	--	27	52	2.5	.5	13	124	.87
MAY 24...	3.7	.2	1.4	44	0	36	29	1.6	.4	10	91	.10
JUN 21...	--	--	--	62	0	51	--	--	--	--	--	.13
JUL 25...	--	--	--	74	0	61	--	--	--	--	--	.17
AUG 30...	11	.4	1.7	90	0	74	83	3.8	.6	15	209	.16
SEP 27...	--	--	--	92	0	75	--	--	--	--	--	.10

08266790 RED RIVER ABOVE STATE FISH HATCHERY NEAR QUESTA, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)	SAMPLE SOURCE (72005)
OCT 19...	.10	.01	.12	.22	.010	.00	50	80	3.4	.00	--
NOV 13...	.12	.01	.26	.38	.020	.04	--	--	.8	.00	--
JAN 18...	.28	.02	.30	.43	.050	.01	10	300	2.1	.11	--
MAR 19...	.18	.02	.04	.24	.020	.02	--	--	3.1	.00	--
APR 27...	.87	.04	.39	1.3	.190	.01	20	210	6.7	.00	--
MAY 24...	.12	.05	.82	.97	.460	.01	40	80	--	--	--
JUN 21...	.17	.01	.79	.93	.120	.01	--	--	4.4	.00	29*
JUL 25...	.18	.01	.18	.36	.020	.00	--	--	1.3	.00	--
AUG 30...	.20	.01	.16	.33	.040	.01	10	160	1.2	.00	29*
SEP 27...	.19	.00	.23	.33	.000	.00	--	--	1.3	.00	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT 19...	0850	--	<10	50	80	360	210	20	6	--
NOV 13...	1410	--	--	--	--	160	--	20	--	--
JAN 18...	0955	--	<10	10	300	550	520	40	6	--
MAR 19...	1430	--	--	--	--	150	--	70	--	--
APR 27...	0900	<1	<10	20	210	20	24	180	6	--
MAY 24...	0840	0	0	40	80	20	11	120	10	--
JUN 21...	0855	<1	--	--	--	9	--	70	--	29*
JUL 25...	0840	<1	--	--	--	19	--	70	--	--
AUG 30...	0930	1	<10	10	160	53	64	30	3	29*
SEP 27...	0935	<1	--	--	--	88	--	30	--	--

* Under the heading of SAMPLE SOURCE numerical values are used to indicate sampling method; 29 indicates dip or grab sample.

08266790 RED RIVER ABOVE STATE FISH HATCHERY NEAR QUESTA, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT		
19...	0850	13
NOV		
13...	1410	48
JAN		
18...	0955	4
MAR		
19...	1430	0
MAY		
24...	0840	69
JUN		
21...	0855	76
JUL		
25...	0840	27

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SAMPLE SOURCE (72005)
OCT						
19...	0830	15	10.0	2	.08	--
NOV						
13...	1410	19	9.0	11	.56	--
MAR						
19...	1430	22	9.0	43	2.6	--
JUN						
21...	0855	430	8.5	943	1100	29*
JUL						
25...	0840	130	11.0	18	6.3	--
AUG						
30...	0930	70	10.0	14	2.6	29*

* Under the heading of SAMPLE SOURCE numerical values are used to indicate sampling method; 29 indicates dip or grab sample.

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM

LOCATION.—Lat 36°40'54", long 105°39'21", in NW¼NW¼ sec.10, T.28 N., R.12 E., Taos County, Hydrologic Unit 13020101, on right bank 0.3 mi (0.5 km) downstream from State Fish Hatchery, 3.5 mi (5.6 km) upstream from mouth, and 3.7 mi (6.0 km) southwest of Questa.

DRAINAGE AREA.--185 mi^2 (479 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—August 1969 to July 1978 (discharge measurements only), August 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,070 ft (2,155 m), from topographic map. Prior to Aug. 16, 1979, at site about 250 ft (76 m) upstream at datum 5.55 ft (1.692 ft) higher.

REMARKS.--Water-discharge records good. Diversions for irrigation of about 3,000 acres (12 km^2) above station.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 755 ft^3/s (21.4 m^3/s) June 8, 1979, gage height, 5.30 ft (1.615 m), site and datum then in use; minimum, 25 ft^3/s (0.71 m^3/s) Oct. 9,11, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 165 ft^3/s (4.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 9	0230	302	8.55	3.38	1.030
May 27	0330	712	20.2	5.15	1.570
June 8	2400	*755	21.4	5.30	1.615

Minimum discharge, 25 ft^3/s (0.71 m^3/s) Oct. 9, 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	29	33	30	31	38	40	191	550	398	104	69
2	27	30	34	30	32	38	42	196	540	413	100	68
3	27	30	31	29	32	38	38	203	530	388	97	66
4	28	34	28	28	32	38	36	191	520	356	91	65
5	28	32	28	29	31	38	36	196	500	335	89	65
6	28	32	28	30	31	39	37	225	523	319	89	62
7	28	32	27	30	31	40	39	249	539	314	88	59
8	28	33	27	30	32	40	42	268	617	302	86	57
9	27	33	26	30	32	40	45	279	673	287	89	55
10	26	32	26	30	33	40	50	234	600	268	97	55
11	26	35	26	30	33	40	46	203	550	256	106	55
12	26	38	26	30	33	40	45	169	540	239	98	54
13	26	36	26	31	33	41	42	156	565	225	93	53
14	26	36	26	32	34	42	44	169	600	219	98	53
15	27	36	26	33	35	44	47	198	595	219	111	57
16	28	34	26	34	34	48	56	232	598	212	117	54
17	29	32	26	35	36	48	71	285	595	198	110	53
18	29	31	27	35	36	47	100	337	565	200	103	51
19	30	31	28	35	36	43	132	375	525	191	99	49
20	30	32	28	34	38	42	139	432	472	176	96	50
21	31	32	28	31	38	43	144	464	445	166	89	54
22	35	32	28	33	37	42	162	447	447	159	82	52
23	33	32	29	31	38	42	193	445	447	154	81	50
24	32	33	29	30	37	41	216	468	436	144	79	50
25	32	37	29	31	36	42	219	485	485	132	74	49
26	32	35	29	33	39	42	207	638	442	134	75	47
27	31	35	29	32	41	42	200	676	436	129	78	47
28	31	32	30	32	40	43	200	667	426	129	75	47
29	30	31	30	32	---	43	200	656	419	129	73	46
30	30	32	30	31	---	42	193	621	415	115	71	46
31	30	---	30	31	---	42	---	600	---	113	70	---
TOTAL	898	989	874	972	971	1288	3061	10955	15595	7019	2808	1638
MEAN	29.0	33.0	28.2	31.4	34.7	41.5	102	353	520	226	90.6	54.6
MAX	35	38	34	35	41	48	219	676	673	413	117	69
MIN	26	29	26	28	31	38	36	156	415	113	70	46
AC-FT	1780	1960	1730	1930	1930	2550	6070	21730	30930	13920	5570	3250

WTR YR 1979 TOTAL 47068 MEAN 129 MAX 676 MIN 26 AC-FT 93360

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Replaces station 08266800 Red River at Fish Hatchery, near Questa, NM. Samples collected at this location (08266820) since July 1974 but published under 08266800 until 1978 water year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
19...	1000	29	342	7.6	7.0	13.0	1.4	8.1	120	--
NOV										
13...	1540	30	344	8.2	5.5	12.0	1.0	7.2	120	46
JAN										
18...	0900	33	630	8.0	2.0	9.0	4.2	8.0	270	200
23...	1035	32	550	7.7	--	9.0	--	--	--	--
FEB										
15...	1135	34	577	7.5	--	8.5	2.5	--	250	180
MAR										
14...	1000	55	610	7.4	--	2.0	--	--	--	--
19...	1330	45	340	8.3	7.5	11.0	7.0	8.2	130	68
APR										
10...	1710	--	315	7.6	--	9.0	--	--	--	--
19...	1420	150	--	--	--	10.0	6.0	8.4	110	61
27...	0815	200	190	7.9	11.0	3.0	72	9.2	86	38
MAY										
10...	1435	241	194	7.3	--	8.0	--	--	--	--
24...	1000	425	125	7.6	14.0	6.0	240	8.8	67	28
24...	1940	646	170	7.4	--	8.0	--	--	--	--
JUN										
21...	0940	430	170	7.6	22.0	10.0	100	8.2	79	21
27...	1800	423	175	7.6	--	14.0	--	--	--	--
JUL										
25...	0955	145	256	7.6	--	12.0	3.0	7.8	100	39
AUG										
21...	1545	84	343	7.9	--	15.5	--	--	--	--
30...	0900	75	315	7.9	13.0	10.0	2.6	7.8	130	43
SEP										
18...	0945	52	361	7.2	--	9.0	--	--	--	--
27...	0845	46	320	7.9	10.0	11.0	2.8	7.8	130	54

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT									
19...	36	7.5	22	.9	2.2	--	--	81	69
NOV									
13...	37	7.4	20	.8	2.1	102	0	77	75
JAN									
18...	94	9.4	22	.6	5.8	92	0	75	240
23...	--	--	--	--	--	--	--	--	--
FEB									
15...	83	10	24	.7	4.1	--	--	64	230
MAR									
14...	--	--	--	--	--	--	--	--	--
19...	39	7.4	19	.7	2.1	76	0	62	79
APR									
10...	--	--	--	--	--	--	--	--	--
19...	35	6.5	9.0	.4	1.7	--	--	53	70
27...	26	5.0	7.6	.4	1.5	58	0	48	52
MAY									
10...	--	--	--	--	--	--	--	--	--
24...	21	3.6	5.0	.3	1.4	48	0	39	32
24...	--	--	--	--	--	--	--	--	--
JUN									
21...	25	3.9	5.2	.3	1.2	70	0	57	39
27...	--	--	--	--	--	--	--	--	--
JUL									
25...	31	5.8	8.3	.4	1.3	76	0	62	54
AUG									
21...	--	--	--	--	--	--	--	--	--
30...	38	7.3	13	.5	1.9	100	0	82	76
SEP									
18...	--	--	--	--	--	--	--	--	--
27...	40	7.9	17	.6	1.8	96	0	79	88

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUORIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DIS-SOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT									
19...	7.3	1.0	26	227	220	.26	.30	.16	.11
NOV									
13...	6.8	.9	22	226	219	.18	.22	.11	.36
JAN									
18...	7.7	1.1	20	454	447	.26	.26	.02	.24
23...	--	--	--	--	--	--	--	--	--
FEB									
15...	8.1	1.1	21	418	421	--	.23	--	--
MAR									
14...	--	--	--	--	--	--	--	--	--
19...	6.8	.9	20	--	213	.22	.25	.10	.16
APR									
10...	--	--	--	--	--	--	--	--	--
19...	3.8	.7	13	--	174	.40	.36	.03	.86
27...	3.7	.5	13	129	140	.40	.36	.06	.75
MAY									
10...	--	--	--	--	--	--	--	--	--
24...	2.4	.4	10	102	101	.13	.14	.17	.70
24...	--	--	--	--	--	--	--	--	--
JUN									
21...	2.3	.5	11	--	124	.16	.31	.03	.61
27...	--	--	--	--	--	--	--	--	--
JUL									
25...	3.2	.2	14	154	156	.18	.18	.03	.46
AUG									
21...	--	--	--	--	--	--	--	--	--
30...	4.5	.7	17	--	209	.17	.21	.04	.04
SEP									
18...	--	--	--	--	--	--	--	--	--
27...	5.2	.8	20	--	229	.22	.23	.06	.33

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)	SAMPLE SOURCE (72005)
OCT									
19...	.53	.040	.00	--	40	40	1.6	.00	--
NOV									
13...	.65	.060	.04	--	10	50	1.3	.00	--
JAN									
18...	.52	.090	.01	--	10	170	2.3	.08	--
23...	--	--	--	--	--	--	--	--	--
FEB									
15...	--	--	.04	--	--	--	--	--	--
MAR									
14...	--	--	--	--	--	--	--	--	--
19...	.48	.060	.02	--	0	90	1.4	.00	--
APR									
10...	--	--	--	--	--	--	--	--	--
19...	1.3	.720	.01	--	40	220	11	.01	--
27...	1.2	.180	.07	--	20	160	7.5	.00	--
MAY									
10...	--	--	--	--	--	--	--	--	--
24...	1.0	.400	.00	20	590	80	--	--	--
24...	--	--	--	--	--	--	--	--	--
JUN									
21...	.80	.100	.04	--	20	80	3.5	.00	--
27...	--	--	--	--	--	--	--	--	--
JUL									
25...	.67	.020	.00	--	10	230	2.6	.00	--
AUG									
21...	--	--	--	--	--	--	--	--	--
30...	.25	.050	.01	20	20	140	1.6	.00	29*
SEP									
18...	--	--	--	--	--	--	--	--	--
27...	.61	.020	.10	--	<10	120	1.6	.00	29*

* Under the heading of SAMPLE SOURCE numerical values are used to indicate sampling method; 29 indicates dip or grab sample.

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, TOTAL RECOV- ERABLE (UG/L AS MO) (01062)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT 19...	1000	--	--	<10	40	40	220	180	10	<3	--
NOV 13...	1540	--	--	0	10	50	100	100	20	0	--
JAN 18...	0900	--	--	<10	10	170	340	340	20	<3	--
FEB 15...	1135	--	--	--	--	--	270	--	--	--	--
MAR 19...	1330	--	--	0	0	90	100	100	50	10	--
APR 19...	1420	--	0	0	40	220	76	30	260	20	--
27...	0815	--	0	0	20	160	660	17	120	10	--
MAY 24...	1000	20	0	0	590	80	23	13	190	20	--
JUN 21...	0940	--	<1	<10	20	80	10	16	40	<3	--
JUL 25...	0955	--	<1	<10	10	230	38	31	70	20	--
AUG 30...	0900	20	2	<10	20	140	48	58	30	<3	29*
SEP 27...	0845	--	<1	<10	10	120	68	71	100	8	29*

* Under the heading of SAMPLE SOURCE numerical values are used to indicate sampling method; 29 indicates dip or grab sample.

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT 19...	1000	72
NOV 13...	1540	1940
JAN 18...	0900	4
MAR 19...	1330	0
APR 27...	0815	0
MAY 24...	1000	72
JUN 21...	0940	21
JUL 25...	0955	13

08266820 RED RIVER BELOW FISH HATCHERY, NEAR QUESTA, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
OCT							
19...	1000	29	13.0	12	.94	--	--
24...	1710	34	12.0	17	1.6	--	--
NOV							
13...	1540	30	12.0	18	1.5	--	--
22...	1335	34	12.0	21	1.9	--	--
DEC							
21...	1620	27	11.0	21	1.5	--	--
JAN							
18...	0900	33	9.0	29	2.6	--	--
FEB							
15...	1135	34	8.5	18	1.7	--	--
MAR							
14...	1000	55	2.0	44	6.5	--	--
19...	1330	45	11.0	34	4.1	--	--
APR							
10...	1610	48	9.0	29	3.8	--	--
17...	1222	80	11.0	147	32	--	--
19...	1420	150	10.0	911	369	--	--
27...	0815	200	3.0	394	213	--	--
MAY							
10...	1435	241	8.0	969	631	25	--
24...	1000	425	6.0	2130	2440	--	--
JUN							
13...	1800	564	13.0	1230	1870	--	--
27...	1800	423	14.0	317	362	--	--
JUL							
17...	1345	184	14.5	26	13	--	--
25...	0955	145	12.0	15	5.9	--	--
AUG							
21...	1545	84	15.5	33	7.5	--	--
30...	0900	75	10.0	16	3.2	--	29*
SEP							
18...	0945	52	9.0	0	.00	--	--
27...	0845	46	11.0	12	1.5	--	29*

* Under the heading of SAMPLE SOURCE numerical values are used to indicate sampling method; 29 indicates dip or grab sample

08267000 RED RIVER AT MOUTH, NEAR QUESTA, NM

LOCATION.--Lat 36° 38' 53", long 105° 41' 34", in SW¼ NW¼ sec. 20, T.28N., R.12E., Taos County, Hydrologic Unit 13020101, in Carson National Forest, 250 ft (76 m) upstream from Rio Grande, and 6.5 mi (10.5 Km) southwest of Questa.

DRAINAGE AREA.--190 mi^2 (492 Km^2).

PERIOD OF RECORD.--Water years 1966-69, 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 18...	1000	38	317	8.5	15.0	13.0	.50	8.2	110	20	31	6.8
JAN 17...	1020	44	560	8.2	4.0	9.0	2.0	8.3	310	230	110	8.6
APR 25...	1005	200	180	8.0	19.5	5.5	120	9.4	130	95	25	17
MAY 22...	0945	410	155	7.8	--	6.5	180	9.4	62	21	19	3.5
*JUN 20...	1025	450	173	7.9	22.0	10.0	180	9.0	74	21	23	3.9
AUG 28...	1430	85	290	8.1	--	15.5	3.4	7.8	120	0	38	6.9
SEP 26...	1030	53	310	8.2	18.0	11.0	1.7	8.6	120	20	36	7.0

* Dip or grab sample

DATE	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 18...	110	0	90	.33	.37	.01	.09	.43	.020	--	1.2	.00
JAN 17...	96	0	79	--	.33	--	--	--	--	.01	2.2	.06
APR 25...	46	0	38	.49	.47	.06	.41	.96	.490	.06	13	.00
MAY 22...	50	0	41	.18	.17	.03	1.1	1.3	.550	.01	--	--
JUN 20...	64	0	52	.14	.11	.03	.82	.99	.230	.01	9.3	.00
AUG 28...	--	--	--	.22	.23	.01	.31	.54	.040	.03	--	.00
SEP 26...	120	0	98	.26	.40	.06	.34	.66	.010	.01	2.8	.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
OCT 18...	1000	--	78	10
JAN 17...	1020	--	280	20
APR 25...	1005	0	24	240
MAY 22...	0945	--	48	250
JUN 20...	1025	--	1	120
AUG 28...	1430	2	47	30
SEP 26...	1030	<1	54	50

08267000 RED RIVER AT MOUTH, NEAR QUESTA, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT		
18...	1000	0
JAN		
17...	1020	0
APR		
25...	1005	0
MAY		
22...	0945	26
JUN		
20...	1025	62

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT					
18...	1000	38	13.0	5	.51
MAY					
22...	0945	410	6.5	1940	2150
JUN					
20...	1025	450	10.0	940	1140

08267400 RIO GRANDE ABOVE RIO HONDO AT DUNN BRIDGE, NM

LOCATION.--Lat 36° 32' 06", long 105° 42' 30" in NW¼ sec. 31, T.27N., R.12E., Taos County, Hydrologic Unit 13020101, at Dunn bridge on county road, 50 ft (15 m) upstream from mouth of Arroyo Hondo, 2.2 mi (3.5 Km) west of Arroyo Hondo, 11.6 mi (18.7 Km) northwest of Taos, and at mile 1,677.4 (2,698.9 Km).

DRAINAGE AREA.--Undetermined.

PERIOD OF RECORD.--October 1978 to September 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT												
16...	1445	280	254	8.6	23.0	15.0	2.5	9.5	79	0	23	5.3
NOV												
15...	1340	420	225	8.2	3.0	6.0	2.4	9.8	76	2	23	4.6
JAN												
18...	1330	320	260	8.6	7.0	5.0	1.6	10.6	95	11	29	5.4
MAR												
21...	0750	625	210	8.0	3.0	4.0	11	9.4	76	1	23	4.6
APR												
24...	1415	1620	150	7.9	22.0	12.0	51	8.8	53	0	16	3.2
MAY												
21...	1550	2400	125	8.0	17.0	12.0	85	9.2	45	0	14	2.5
JUN												
19...	0940	6200	172	7.5	17.0	15.0	50	7.4	54	1	16	3.4
JUL												
25...	1055	1720	125	7.7	--	19.0	10	8.4	46	0	14	2.6
AUG												
30...	1210	508	210	8.4	20.0	17.0	3.7	7.8	81	5	25	4.5
SEP												
25...	1400	210	270	8.2	26.0	15.0	1.2	9.8	98	0	29	6.3

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT											
16...	18	.9	3.5	80	1	67	25	5.6	.6	29	151
NOV											
15...	--	--	--	90	0	74	--	--	--	--	--
JAN											
18...	16	.7	3.3	90	6	84	46	4.3	.5	29	185
MAR											
21...	--	--	--	92	0	75	--	--	--	--	--
APR											
24...	8.1	.5	2.9	68	0	56	22	2.6	.3	23	113
MAY											
21...	6.4	.4	2.3	56	0	46	17	2.1	.3	20	93
JUN											
19...	--	--	--	64	0	52	--	--	--	--	--
JUL											
25...	--	--	--	60	0	49	--	--	--	--	--
AUG											
30...	15	.7	3.0	88	2	76	29	3.9	.4	<.0	127
SEP											
25...	--	--	--	130	0	110	--	--	--	--	--

08267400 RIO GRANDE ABOVE RIO HONDO AT DUNN BRIDGE, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 16...	.17	.17	.01	.45	.63	.020	.00	<10	5	2.3	.00
NOV 15...	.12	.15	.00	.38	.50	.060	.03	--	--	1.7	.00
JAN 18...	.25	.24	.02	.16	.43	.050	.01	10	10	1.6	.01
MAR 21...	.32	.34	.07	.45	.84	.110	.07	--	--	3.5	.00
APR 24...	1.9	.23	.04	.91	2.9	.230	.03	20	10	12	.00
MAY 21...	.11	.15	.05	.57	.73	.210	.05	70	10	--	--
JUN 19...	.04	.04	.09	.45	.58	.190	.04	--	--	10	.00
JUL 25...	.05	.09	.01	.05	.11	.120	.04	--	--	--	.00
AUG 30...	.09	.11	.16	.26	.51	.100	.04	<10	<1	3.6	--
SEP 25...	.20	.28	.07	.36	.63	.040	.00	--	--	--	.01

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT 16...	1445	--	<10	<10	5	18	16	20	<3
NOV 15...	1340	--	--	--	--	15	--	10	--
JAN 18...	1330	--	<10	10	10	40	40	10	<3
MAR 21...	0750	--	--	--	--	8	--	30	--
APR 24...	1415	--	<10	20	10	--	<10	--	<3
MAY 21...	1550	0	0	70	10	8	4	70	10
JUN 19...	0940	2	--	--	--	2	--	50	--
JUL 25...	1055	<1	--	--	--	1	--	70	--
AUG 30...	1210	2	<10	<10	<1	9	<10	30	<3
SEP 25...	1400	<1	--	--	--	--	--	--	--

08267400 RIO GRANDE ABOVE RIO HONDO AT DUNN BRIDGE, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)
OCT 16...	1445	4
JAN 18...	1330	0
MAR 21...	0750	0
APR 24...	1415	0
MAY 21...	1550	90
JUN 19...	0940	43
JUL 25...	1055	21

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)
OCT 16...	1525	280	15.0	21	16
NOV 15...	1340	420	6.0	16	18
JAN 18...	1330	320	5.0	5	4.3
MAR 21...	0750	625	4.0	39	66
APR 24...	1415	1620	12.0	221	967
MAY 21...	1550	2400	12.0	363	2350
JUN 19...	0940	6200	15.0	196	3280
JUL 25...	1055	1720	19.0	48	223

08267500 RIO HONDO NEAR VALDEZ, NM

LOCATION.--Lat 36°32'30", long 105°33'21", Taos County, Hydrologic Unit 13020101, in Carson National Forest, on right bank 500 ft (150 m) upstream from first diversion, 1.6 mi (2.6 km) east of Valdez, 3.8 mi (6.1 km) downstream from South Fork, and at mile 9.2 (14. 8 km).

DRAINAGE AREA.--36.2 mi^2 (93.8 km^2).

PERIOD OF RECORD.--August 1934 to current year.

REVISED RECORDS.--WSP 1342: 1935. WSP 1712: Drainage area. WSP 1732: 1942(M).

GAGE.--Water-stage recorder. Concrete control since Oct. 28, 1938. Altitude of gage is 7,650 ft (2,332 m), from topographic map. Prior to Oct. 28, 1938, at datum 1.92 ft (0.585 m) lower.

REMARKS.--Records good except those for winter period, which are fair. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--45 years, 34.2 ft^3/s (0.969 m^3/s), 24,780 acre-ft/yr (30.6 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 541 ft^3/s (15.3 m^3/s) May 13, 1941; maximum gage height, 4.81 ft (1.466 m) Jan. 5, 1970 (ice jam); minimum discharge, about 1 ft^3/s (0.03 m^3/s) Jan. 27, 1942, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 80 ft^3/s (2.3 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Apr. 24	0315	111	3.14	2.81	0.856	May 29	1915	362	10.3	4.36	1.329
May 8	2115	144	4.08	3.04	.927	June 9	0945	*402	11.4	4.53	1.381

Minimum daily discharge, 5.0 ft^3/s (0.14 m^3/s) Jan. 2, but may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	12	12	7.0	8.5	11	18	78	265	282	64	29
2	10	12	12	5.0	10	11	19	81	250	283	61	28
3	10	16	11	6.0	9.0	11	17	81	255	268	59	28
4	10	21	10	9.0	8.0	11	18	76	260	243	56	27
5	9.9	16	13	10	8.0	10	16	79	257	226	52	27
6	9.9	15	12	9.6	8.0	11	18	97	271	206	49	27
7	9.6	14	10	9.7	8.5	11	23	127	299	195	47	27
8	9.7	13	9.0	8.0	9.0	14	31	137	328	183	46	26
9	9.4	13	8.0	8.0	9.0	16	38	131	356	175	47	26
10	9.5	12	7.0	9.9	9.0	16	36	108	307	168	47	25
11	9.5	13	9.1	9.5	9.5	16	31	86	272	158	45	25
12	9.1	14	12	9.5	9.5	17	29	71	287	152	42	25
13	9.0	13	12	9.6	10	19	28	67	304	145	41	25
14	8.8	13	11	8.0	11	20	27	71	309	139	44	26
15	8.9	13	10	9.5	12	20	35	86	333	139	54	25
16	9.1	12	10	9.4	13	21	47	115	323	130	48	25
17	8.8	11	11	9.5	13	21	60	147	326	122	45	25
18	8.8	12	12	9.6	13	20	84	150	345	118	43	24
19	8.9	11	12	9.4	13	18	93	170	334	112	41	24
20	8.6	12	10	9.0	13	17	87	219	308	106	40	24
21	11	12	9.0	8.0	13	17	82	272	290	101	40	24
22	15	12	11	10	12	16	88	230	286	100	40	23
23	14	12	12	7.5	12	15	100	226	290	97	39	22
24	14	12	10	7.5	11	15	107	245	306	89	38	21
25	16	16	11	10	10	16	104	257	305	84	37	21
26	14	15	9.0	10	11	17	98	310	306	79	35	21
27	14	14	9.0	9.0	11	18	87	319	295	76	34	21
28	14	12	10	7.5	11	18	84	309	299	74	33	20
29	13	12	9.8	9.0	---	19	87	339	300	71	32	20
30	13	12	9.9	8.0	---	18	81	307	293	69	31	19
31	13	---	9.8	7.5	---	19	---	278	---	67	30	---
TOTAL	338.5	397	323.6	269.2	295.0	499	1673	5269	8959	4457	1360	730
MEAN	10.9	13.2	10.4	8.68	10.5	16.1	55.8	170	299	144	43.9	24.3
MAX	16	21	13	10	13	21	107	339	356	283	64	29
MIN	8.6	11	7.0	5.0	8.0	10	16	67	250	67	30	19
AC-FT	671	787	642	534	585	990	3320	10450	17770	8840	2700	1450

CAL YR 1978 TOTAL 9776.5 MEAN 26.8 MAX 123 MIN 6.5 AC-FT 19390
WTR YR 1979 TOTAL 24570.3 MEAN 67.3 MAX 356 MIN 5.0 AC-FT 48740

08268500 ARROYO HONDO AT ARROYO HONDO, NM

LOCATION.--Lat 36°31'56", long 105°41'06", Taos County, Hydrologic Unit 13020101, in Arroyo Hondo Grant, on left bank 0.9 mi (1.4 km) downstream from Arroyo Hondo, and at mile 1.4 (2.3 km).

DRAINAGE AREA.--65.6 mi² (169.9 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1910 to June 1912 (discharge measurements and fragmentary gage-height record), July 1912 to December 1928 (fragmentary), and January 1932 to current year. Monthly discharge only for some periods, published in WSP 1312. Statement in WSP 328 that there was no flow in January and much of February 1912 is erroneous. Published as Rio Hondo near Arroyo Hondo prior to 1928, and as Rio Hondo at Arroyo Hondo 1928-65.

REVISED RECORDS.--WSP 1342: 1915, 1932(M), 1934-38(M). WSP 1712: Drainage area. WSP 1732: 1926. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Altitude of gage is 6,670 ft (2,033 m), from topographic map. See WSP 1923 for history of changes prior to Sept. 11, 1963. Sept. 11, 1963 to Apr. 2, 1969, at site 25 ft (8 m) downstream on right bank at same datum.

REMARKS.--Water-discharge records good except those for May and June, which are fair. Diversions above station for irrigation of about 2,500 acres (10 km²).

AVERAGE DISCHARGE.--63 years (water years 1913-28, 1933-79), 26.9 ft³/s (0.762 m³/s), 19,490 acre-ft/yr (24.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1937).--Maximum discharge, 1,060 ft³/s (30.0 m³/s) July 19, 1948, gage height, 3.75 ft (1.143 m), from rating curve extended above 200 ft³/s (5.7 m³/s); maximum gage height, 5.06 ft (1.542 m) June 8, 1979, backwater from debris; minimum discharge, 3.3 ft³/s (0.093 m³/s) May 7, 1977.

Maximum gage height observed, 5.45 ft (1.661 m), site and datum then in use, Aug. 23, 1935; discharge uncertain, but probably exceeded 1,200 ft³/s (34 m³/s). A minimum daily discharge of 3 ft³/s (0.08 m³/s) occurred Oct. 19, 1912. Discharge not determined for the major floods of Oct. 6, 1911, Sept. 1, 1932 and July 22, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 75 ft³/s (2.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 25	0930	150	4.25	3.54	1.079	June 8	1700	(a)	(a)	*5.06	1.542
May 8	2300	174	4.93	3.63	1.106	June 9	0845	*518	14.7	4.85	1.478
May 26	1400	370	10.5	4.15	1.265						

Minimum discharge, 5.4 ft³/s (0.15 m³/s) Jan. 2.

a Backwater from debris

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	7.9	16	10	11	17	21	52	320	237	36	16
2	7.0	8.0	17	6.8	14	18	19	54	307	222	35	15
3	7.1	8.8	15	9.5	12	17	19	68	296	212	34	14
4	7.0	8.2	14	16	10	16	18	62	294	200	32	14
5	7.0	8.0	18	19	10	15	18	60	296	188	28	13
6	7.1	7.8	15	20	11	17	20	71	289	179	25	13
7	7.1	7.6	14	18	12	19	22	104	286	167	23	13
8	7.3	7.8	12	12	13	22	27	136	335	156	18	12
9	6.6	7.7	10	12	13	22	34	125	415	137	21	12
10	6.7	7.8	8.9	15	13	20	33	126	366	127	21	12
11	6.7	9.6	11	15	14	20	28	99	323	122	21	11
12	6.7	9.7	14	18	14	22	26	86	293	110	21	11
13	6.8	8.4	17	16	15	24	23	78	324	102	20	10
14	6.9	9.0	17	13	17	24	23	78	339	94	21	12
15	6.8	9.2	16	17	20	24	28	91	342	94	26	11
16	6.8	8.1	16	17	20	25	39	120	340	92	24	11
17	6.9	8.0	17	17	20	25	51	169	329	85	24	11
18	7.0	7.9	22	18	18	24	76	167	321	81	24	10
19	7.0	7.9	25	16	19	22	114	194	307	77	24	11
20	7.1	7.8	18	14	20	21	97	238	268	73	23	12
21	9.9	7.9	13	11	19	22	89	300	234	68	21	12
22	8.6	8.8	15	15	18	20	96	255	227	65	21	11
23	7.6	8.1	16	10	17	19	121	249	229	62	20	11
24	7.8	9.6	14	9.5	16	19	131	269	241	57	20	11
25	8.2	12	16	14	15	19	129	284	240	53	19	11
26	8.0	12	15	16	16	20	103	340	238	49	20	11
27	7.7	17	15	14	17	20	84	360	240	48	20	11
28	7.7	16	19	9.5	17	21	71	343	244	48	19	11
29	7.7	16	18	13	---	21	67	358	244	46	18	11
30	7.6	16	18	11	---	21	56	350	252	43	18	10
31	8.0	---	18	9.5	---	21	---	340	---	36	17	---
TOTAL	227.4	288.6	489.9	431.8	431	637	1683	5626	8779	3330	714	354
MEAN	7.34	9.62	15.8	13.9	15.4	20.5	56.1	181	293	107	23.0	11.8
MAX	9.9	17	25	20	20	25	131	360	415	237	36	16
MIN	6.6	7.6	8.9	6.8	10	15	18	52	227	36	17	10
AC-FT	451	572	972	856	855	1260	3340	11160	17410	6610	1420	702

CAL YR 1978 TOTAL 5537.4 MEAN 15.2 MAX 57 MIN 5.3 AC-FT 10980
WTR YR 1979 TOTAL 22991.7 MEAN 63.0 MAX 415 MIN 6.6 AC-FT 45600

08268500 ARROYO HONDO AT ARROYO HONDO, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--October 1978 to September 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 16...	1415	5.0	250	8.8	23.0	18.0	.40	8.2	150	0	47	8.7
JAN 18...	1330	18	230	8.4	7.0	4.0	7.7	8.6	110	5	35	5.6
APR 24...	1445	116	135	7.8	22.0	8.0	20	8.2	67	2	22	3.0
MAY 21...	1500	292	110	8.2	17.0	8.0	120	8.2	46	3	15	2.1
JUN 19...	1130	307	112	7.3	22.0	9.0	54	8.8	45	1	15	1.9
*AUG 30...	1230	17	300	8.5	21.0	15.0	.80	7.6	130	0	43	6.5
*SEP 25...	1330	11	340	8.4	26.0	17.0	2.0	8.0	160	0	50	8.2

* Dip or grab sample

DATE	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT 16...	166	18	166	.59	.62	.00	1.1	1.7	.020	.01	3.4	.00
JAN 18...	120	4	105	.61	.60	.02	.18	.81	.050	.00	2.4	.00
APR 24...	80	0	66	.25	.24	.23	1.2	1.7	.040	.04	9.6	.00
MAY 21...	52	0	43	.12	.16	.06	.67	.85	.070	.04	--	--
JUN 19...	54	0	44	.15	.18	.01	.66	.82	.090	.03	6.8	.00
AUG 30...	180	4	154	.36	.38	.02	.00	.38	.020	--	6.1	.00
SEP 25...	200	6	170	.68	.68	.02	.39	1.1	.010	.00	--	.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
OCT 16...	1415	--	6	10
JAN 18...	1330	--	7	20
APR 24...	1445	--	5	110
MAY 21...	1500	--	4	60
JUN 19...	1130	<1	3	60
AUG 30...	1230	2	5	0
SEP 25...	1330	<1	6	10

08268500 ARROYO HONDO AT ARROYO HONDO, NM - Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT		
16...	1415	15
JAN		
18...	1330	1
APR		
24...	1445	28
MAY		
21...	1500	33
JUN		
19...	1130	58

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
JAN					
18...	1330	18	4.0	26	1.3
APR					
24...	1445	116	8.0	189	59
JUN					
19...	1130	307	9.0	779	646
AUG					
30...	1230	17	15.0	8	.37
SEP					
25...	1330	11	17.0	24	.71

08268700 RIO GRANDE NEAR ARROYO HONDO, NM

LOCATION.--Lat 36°32'04", long 105°42'34", in NW¼ sec.31, T.27 N., R.12 E., Taos County, Hydrologic Unit 13020101, on right bank 350 ft (110 m) downstream from Arroyo Hondo, 400 ft (120 m) downstream from bridge on county road, 2.2 mi (3.5 km) west of Arroyo Hondo, 11.6 mi (18.7 km) northwest of Taos, and at mile 1,677.4 (2,698.9 km).

DRAINAGE AREA.--8,760 mi^2 (22,690 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--February 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,470 ft (1,972 m), from topographic map.

REMARKS.--Records good except those for December, which are fair. Diversions above station for irrigation of about 620,000 acres (2,500 km^2) in Colorado and 15,000 acres (61 km^2) in New Mexico. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--16 years, 574 ft^3/s (16.26 m^3/s), 415,900 acre-ft/yr (513 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,240 ft^3/s (177 m^3/s) June 11, 1979, gage height, 7.34 ft (2.237 m); minimum, 136 ft^3/s (3.85 m^3/s) Aug. 2, 1963.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,400 ft^3/s (40 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Mar. 17	0430	2020	57.2	4.09	1.247	June 11	0345	*6240	177	7.34	2.237
May 9	0245	2630	74.5	4.66	1.420						

Minimum daily discharge, 150 ft^3/s (4.2 m^3/s) Dec. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	213	433	278	317	320	405	658	1700	5230	3700	1350	422
2	217	386	351	306	340	405	631	1650	5090	3580	1280	393
3	216	373	314	290	340	409	618	1700	4920	3510	1180	378
4	216	383	303	294	330	409	581	1900	4420	3530	1090	370
5	208	383	298	312	320	401	567	1980	4210	3440	1000	358
6	210	384	341	310	320	397	548	1920	4310	3240	929	343
7	213	398	274	304	330	447	541	2100	4390	3210	881	332
8	216	411	202	299	330	499	559	2390	4710	3160	839	318
9	225	403	150	296	330	522	601	2520	5510	3070	821	300
10	222	392	160	297	330	481	660	2290	6000	3030	821	290
11	222	389	200	298	330	477	737	1940	6040	3040	827	276
12	222	390	230	305	330	517	789	1720	5460	2830	905	266
13	222	387	250	308	330	593	757	1510	4740	2580	893	256
14	219	396	270	299	340	667	726	1370	4420	2460	887	241
15	222	420	280	308	360	763	694	1340	4590	2260	947	238
16	231	448	280	313	351	958	691	1470	5020	2080	998	234
17	241	411	290	316	352	1520	770	1940	5260	1980	991	231
18	358	386	300	342	339	1060	975	2130	5310	2220	1050	228
19	447	386	320	332	357	804	1230	2140	4940	2310	1060	221
20	512	376	310	330	368	703	1430	2290	4430	2310	1040	219
21	573	369	320	317	348	707	1560	2780	4040	2300	953	221
22	612	366	320	337	360	701	1560	3200	3880	2200	917	218
23	622	361	320	331	366	675	1630	3250	3800	2090	875	216
24	632	369	310	317	374	673	1760	3400	3780	1950	839	215
25	646	407	310	328	378	675	1880	3690	3900	1880	797	214
26	577	408	314	343	385	714	1880	4170	4030	1720	756	212
27	520	411	310	340	389	755	1760	4430	4100	1590	728	209
28	511	397	318	320	397	719	1700	4500	4040	1530	679	209
29	502	351	317	330	---	669	1620	4540	3940	1490	578	207
30	471	318	320	320	---	671	1680	4760	3870	1420	512	206
31	465	---	321	310	---	677	---	4980	---	1380	460	---
TOTAL	11183	11692	8881	9769	9744	20073	31793	81700	138380	77090	27883	8041
MEAN	361	390	286	315	348	648	1060	2635	4613	2487	899	268
MAX	646	448	351	343	397	1520	1880	4980	6040	3700	1350	422
MIN	208	318	150	290	320	397	541	1340	3780	1380	460	206
AC-FT	22180	23190	17620	19380	19330	39810	63060	162100	274500	152900	55310	15950

CAL YR 1978 TOTAL 142622 MEAN 391 MAX 1030 MIN 150 AC-FT 282900
WTR YR 1979 TOTAL 436229 MEAN 1195 MAX 6040 MIN 150 AC-FT 865300

08269000 RIO PUEBLO DE TAOS NEAR TAOS, NM

LOCATION.--Lat 36°26'22", long 105°30'11", in SW¼SE¼ sec. 36, T.26 N., R.13 E., Taos County, Hydrologic Unit 13020101, in Taos Pueblo Grant, on right bank 2.3 mi (3.7 km) east of Taos Pueblo, 4.5 mi (7.2 km) northeast of Taos, 5.8 mi (9.3 km) upstream from Rio Lucero, and at mile 15.1 (24.3 km).

DRAINAGE AREA.--66.6 mi² (172.5 km²).

PERIOD OF RECORD.--January 1911 to December 1916, January 1940 to December 1951, annual maximum, water years 1952-62, October 1962 (monthly discharge only), November 1962 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1911-12, 1914. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Nov. 20, 1962. Altitude of gage is 7,380 ft (2,249 m), from topographic map. See WSP 1923 for history of changes prior to Nov. 20, 1962.

REMARKS.--Records good except those for winter period and those above 150 ft³/s (4.2 m³/s), which are fair. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years (water years 1911-16, 1941-51, 1963-79), 28.2 ft³/s (0.799 m³/s), 20,430 acre-ft/yr (25.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,050 ft³/s (29.7 m³/s) May 26, 1979, gage height, 3.42 ft (1.042 m), from rating curve extended above 370 ft³/s (10 m³/s); maximum gage height, 3.90 ft (1.189 m), from floodmark, May 14, 1941, site and datum then in use; minimum discharge, about 0.9 ft³/s (0.03 m³/s) Jan. 9, 1964, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 60 ft³/s (1.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 24	2100	261	7.39	1.74	0.530	May 26	1015	a*1,050	29.7	3.42	1.042
May 9	0115	343	9.71	1.85	.564	June 9	0215	549	15.5	2.71	.826
May 21	0445	755	21.4	2.90	.884						

a From rating curve extended above 370 ft³/s (10 m³/s).

Minimum discharge, 3.0 ft³/s (0.085 m³/s) Nov. 29, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.3	6.9	7.5	5.0	7.8	8.5	20	168	295	152	35	18
2	5.1	6.9	7.3	4.0	7.2	9.6	18	186	283	150	33	18
3	5.1	9.2	5.9	4.0	6.9	9.2	18	197	324	143	32	18
4	5.2	27	5.0	5.0	5.5	8.3	16	172	354	129	30	17
5	5.1	18	5.5	6.9	6.0	6.0	16	171	328	118	29	16
6	5.2	13	6.3	6.4	6.0	7.0	19	224	295	110	28	15
7	5.2	11	5.9	6.4	6.0	9.0	29	291	295	104	27	15
8	5.2	9.8	4.5	5.0	6.0	11	44	304	372	98	27	15
9	5.1	9.2	3.5	5.0	6.6	15	56	291	489	93	28	15
10	5.1	8.6	4.5	5.5	6.6	14	47	228	404	87	30	15
11	5.1	8.5	5.5	6.2	6.6	14	39	175	324	81	31	15
12	5.1	9.7	5.5	6.1	6.6	18	35	145	279	75	27	17
13	5.1	8.9	5.5	6.1	6.9	20	31	137	287	71	26	15
14	5.2	8.9	6.0	5.0	7.5	21	33	140	315	68	33	17
15	5.3	8.7	6.5	6.4	8.5	21	49	170	315	69	40	17
16	5.1	7.7	6.5	6.3	8.9	22	82	201	300	66	35	16
17	5.1	6.6	6.5	6.4	9.9	23	112	229	283	64	30	15
18	5.0	7.3	7.0	6.5	7.0	21	163	241	261	61	29	15
19	5.2	6.3	8.0	6.4	7.4	18	193	253	231	57	27	14
20	5.2	6.9	8.6	6.4	9.5	17	163	339	203	54	26	14
21	6.0	7.5	5.0	4.7	9.9	16	150	645	181	51	25	15
22	9.1	8.0	9.2	5.5	9.7	15	170	443	177	49	24	14
23	7.1	7.2	10	5.5	9.1	13	221	385	183	47	23	13
24	6.7	7.2	9.0	5.0	8.7	13	242	372	205	45	23	13
25	9.3	11	10	6.0	6.5	14	225	549	208	43	22	12
26	8.1	9.0	9.9	7.0	7.5	16	235	926	188	42	22	12
27	7.9	8.0	9.9	7.9	9.9	19	213	652	175	41	22	12
28	7.4	6.7	8.9	6.0	9.0	23	193	538	167	39	21	12
29	7.1	5.7	6.9	7.9	---	25	210	474	161	38	20	12
30	6.9	7.9	6.7	7.0	---	23	176	390	155	37	19	11
31	6.9	---	6.7	7.8	---	23	---	328	---	37	19	---
TOTAL	185.5	277.3	213.7	185.3	213.7	492.6	3218	9964	8037	2319	843	443
MEAN	5.98	9.24	6.89	5.98	7.63	15.9	107	321	268	74.8	27.2	14.8
MAX	9.3	27	10	7.9	9.9	25	242	926	489	152	40	18
MIN	5.0	5.7	3.5	4.0	5.5	6.0	16	137	155	37	19	11
AC-FT	368	550	424	368	424	977	6380	19760	15940	4600	1670	879

CAL YR 1978 TOTAL 8171.1 MEAN 22.4 MAX 162 MIN 3.5 AC-FT 16210
WTR YR 1979 TOTAL 26392.1 MEAN 72.3 MAX 926 MIN 3.5 AC-FT 52350

08271000 RIO LUCERO NEAR ARROYO SECO, NM

LOCATION.--Lat 36°30'30", long 105°31'49", Taos County, Hydrologic Unit 13020101, in Tract C Taos Pueblo Grant, on right bank 200 ft (61 m) upstream from diversion dam for Tenorio and Indian ditches, 2.2 mi (3.5 km) east of Arroyo Seco, 7.4 mi (11.9 km) northeast of Taos, and at mile 8.1 (13.0 km).

DRAINAGE AREA.--16.6 mi² (43.0 km²).

PERIOD OF RECORD.--April to December 1910 (discharge measurements and occasional gage heights), January 1911 to September 1915, March to December 1916 (fragmentary), October 1933 to December 1951, annual maximum, water years 1952-62, October 1962 (monthly discharge only), November 1962 to current year. Monthly discharge only for some periods, published in WSP 1312. Fragmentary records for October 1915 to February 1916, published in WSP 438, are unreliable and should not be used. Published as "near Taos," 1910-16.

REVISED RECORDS.--WSP 1512: 1912, 1916, 1949. WSP 1732: Drainage area. WDR NM-75-1: 1973. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Concrete control since Nov. 21, 1962. Datum of gage is 8,051.44 ft (2,454.070 m) National Geodetic Vertical Datum of 1929. See WSP 1923 for history of changes prior to Nov. 21, 1962.

REMARKS.--Records good except those for winter period and those above 125 ft³/s (3.5 m³/s), which are fair. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years (water years 1911-15, 1934-51, 1963-79), 21.7 ft³/s (0.615 m³/s), 15,720 acre-ft/yr (19.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 310 ft³/s (8.78 m³/s) June 8, 1979, gage height, 2.33 ft (0.710 m); maximum gage height, 3.12 ft (0.951 m), May 13, 1941, datum then in use; minimum discharge, about 1.4 ft³/s (0.04 m³/s) Nov. 2, 1951, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 70 ft³/s (2.0 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
May 7	2315	76	2.15	1.56	0.475	May 30	0030	201	5.69	2.06	0.628
May 21	0700	173	4.90	1.93	.588	June 8	2230	*310	8.78	2.33	.710

Minimum discharge, 3.0 ft³/s (0.085 m³/s) Dec. 26, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	7.1	6.6	5.0	4.8	5.5	7.2	39	155	142	38	17
2	6.2	7.0	6.1	4.0	4.7	5.6	6.8	41	145	154	36	17
3	6.2	8.9	6.0	4.5	4.6	5.6	6.5	41	142	136	34	16
4	6.2	10	5.9	5.0	4.6	5.4	6.6	39	150	123	32	16
5	5.9	8.5	7.9	5.0	4.6	5.3	6.8	42	151	109	30	15
6	5.9	7.9	7.4	5.0	4.6	5.1	8.2	55	154	97	28	15
7	5.9	7.5	7.0	5.0	4.6	5.4	11	70	169	100	26	14
8	5.9	7.2	6.5	4.8	4.6	6.9	15	75	220	99	22	14
9	5.9	7.2	6.0	4.8	4.6	8.5	19	66	245	98	23	14
10	5.9	7.0	5.0	4.8	4.6	8.5	17	52	189	95	23	14
11	5.3	7.6	6.5	4.8	4.8	8.7	14	41	147	97	23	14
12	5.7	7.8	7.5	4.9	5.1	9.9	12	37	126	94	23	13
13	5.8	6.9	7.5	4.9	5.2	11	11	36	144	90	22	13
14	5.9	6.7	7.0	4.7	5.5	12	12	40	180	87	23	14
15	5.8	7.1	6.0	4.8	6.1	12	18	54	178	97	28	14
16	5.8	7.0	6.0	4.9	6.5	13	26	67	189	86	26	13
17	5.8	6.5	6.5	4.8	6.5	12	34	83	170	88	26	13
18	5.8	6.7	7.0	4.9	6.3	11	45	86	164	84	26	12
19	5.8	6.7	6.5	4.8	6.3	10	47	103	146	78	26	12
20	5.7	7.2	5.8	4.7	6.4	9.1	43	118	120	73	25	12
21	7.5	7.7	5.4	4.8	6.2	8.8	42	149	113	67	23	12
22	8.1	7.1	5.5	4.8	5.9	8.0	45	119	117	64	23	12
23	6.9	6.6	5.2	4.7	5.6	7.4	52	113	133	61	22	11
24	6.9	6.9	5.1	4.7	5.3	6.7	55	133	158	59	22	11
25	7.2	9.7	4.7	4.8	5.1	6.8	54	149	163	55	21	10
26	6.4	7.1	4.3	4.7	5.2	7.3	47	153	148	52	21	10
27	6.4	6.7	4.2	4.9	5.4	7.9	42	157	154	50	20	10
28	7.1	6.2	5.2	4.7	5.4	8.3	41	168	153	48	19	10
29	7.1	7.0	5.5	4.8	---	8.3	42	187	149	46	19	10
30	6.8	7.3	5.3	4.7	---	8.1	40	188	137	43	19	9.9
31	6.9	---	5.3	4.7	---	8.2	---	165	---	41	18	---
TOTAL	194.9	220.8	186.4	148.4	149.1	256.3	826.1	2866	4709	2613	767	387.9
MEAN	6.29	7.36	6.01	4.79	5.33	8.27	27.5	92.5	157	84.3	24.7	12.9
MAX	8.1	10	7.9	5.0	6.5	13	55	188	245	154	38	17
MIN	5.3	6.2	4.2	4.0	4.6	5.1	6.5	36	113	41	18	9.9
AC-FT	387	438	370	294	296	508	1640	5680	9340	5180	1520	769

CAL YR 1978 TOTAL 6609.3 MEAN 18.1 MAX 79 MIN 4.0 AC-FT 13110
WTR YR 1979 TOTAL 13324.9 MEAN 36.5 MAX 245 MIN 4.0 AC-FT 26430

08275000 RIO FERNANDO DE TAOS NEAR TAOS, NM

LOCATION.--Lat 36°22'32", long 105°32'55", in W½NW¼ sec.27, T.25 N., R.13 E., Taos County, Hydrologic Unit 13020101, in Carson National Forest, on right bank 175 ft (53 m) upstream from Acequia Madre del Norte del Cañon, 2.5 mi (4.0 km) southeast of Taos, and at mile 5.0 (8.0 km).

DRAINAGE AREA.--71.7 mi^2 (185.7 km^2).

PERIOD OF RECORD.--April to September 1910 (gage heights and discharge measurements only), October 1910 to June 1911 (discharge measurements only), October 1912 to September 1917, October 1927 to December 1928, October to November 1962 (monthly discharge only), December 1962 to current year.

REVISED RECORDS.--WSP 1512; 1914-15. WSP 1923: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Dec. 13, 1962. Altitude of gage is 7,140 ft (2,176 m), from topographic map. See WSP 1923 for history of changes prior to Dec. 13, 1962.

REMARKS.--Records good. A few very small diversions above station for irrigation. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--23 years (water years 1913-17, 1928, 1963-79), 6.47 ft^3/s (0.183 m^3/s), 4,690 acre-ft/yr (5.78 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1962).--Maximum discharge, 219 ft^3/s (6.20 m^3/s) May 13, 1973, gage height, 2.38 ft (0.725 m); minimum, 0.02 ft^3/s (0.001 m^3/s) part or all of each day Jan. 14-18, 1967, Sept. 15-19, 1972, Sept. 2, 4, 5, 8-13, 16, 19, Oct. 7, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood of undetermined magnitude occurred July 21, 1921.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 25 ft^3/s (0.7 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 25	0200	111	3.14	1.78	0.543	June 9	0215	173	4.90	2.17	0.661
May 9	2145	123	3.48	1.85	.564	June 25	0100	67	1.90	1.50	.457
May 26	0700	*190	5.38	2.39	.728						

Minimum discharge, 0.02 ft^3/s (1.001 m^3/s) Oct. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.12	1.4	1.3	2.2	2.6	9.2	78	93	23	9.7	5.9
2	.05	.12	1.4	.92	2.2	2.9	8.3	78	103	22	8.8	5.7
3	.07	.14	1.3	1.4	2.1	2.7	8.7	86	96	21	8.5	5.5
4	.08	.45	.93	1.7	1.9	2.7	8.1	85	85	21	8.2	5.2
5	.07	.42	1.1	1.7	2.0	2.3	8.3	82	85	20	7.9	5.1
6	.08	.16	1.2	1.7	2.1	2.6	8.9	83	74	20	7.6	4.9
7	.04	.12	.89	1.5	2.0	3.2	11	96	64	21	7.3	4.9
8	.04	.12	.79	1.5	2.1	3.6	16	102	80	18	7.1	4.7
9	.05	.12	.55	1.7	2.0	3.6	22	114	135	17	6.4	4.7
10	.06	.12	.71	1.8	2.0	3.7	21	101	98	16	8.3	4.5
11	.07	.12	.89	1.7	2.0	3.6	15	80	89	15	9.7	4.2
12	.08	.25	1.1	1.7	2.1	4.2	15	67	80	14	8.2	4.8
13	.10	.45	1.1	1.7	2.2	4.4	15	55	70	14	7.6	4.3
14	.10	.37	1.2	1.7	2.3	4.6	17	49	61	13	9.6	4.9
15	.10	.43	1.2	1.9	2.3	4.7	23	49	55	14	13	5.8
16	.10	.47	1.2	1.9	2.3	4.9	34	51	50	14	11	5.0
17	.10	.46	1.3	1.8	2.3	5.1	39	56	45	14	9.7	4.4
18	.10	.48	1.6	1.9	2.1	5.3	58	55	41	14	9.4	3.9
19	.10	.50	2.0	1.8	2.3	5.2	85	53	38	14	8.9	3.5
20	.10	.53	1.8	1.8	2.9	5.4	77	61	37	13	8.4	3.2
21	.20	.57	1.5	1.5	2.7	5.8	70	110	34	13	8.0	3.3
22	.30	.58	1.7	2.2	2.7	5.7	73	103	32	12	7.5	3.4
23	.10	.64	1.9	1.6	2.6	5.5	82	91	30	11	7.3	3.2
24	.07	.71	1.6	1.5	2.3	5.5	94	84	34	10	7.1	3.0
25	.08	1.1	1.7	2.2	1.9	6.0	103	104	44	9.4	6.8	2.9
26	.09	1.1	1.6	2.2	2.4	6.4	101	160	32	9.2	6.8	2.8
27	.09	1.1	1.5	2.1	2.9	7.1	97	171	28	10	7.6	2.9
28	.10	1.1	1.5	1.6	2.7	8.6	95	162	26	9.4	6.9	3.0
29	.10	1.0	1.3	2.3	---	10	93	126	24	9.7	6.3	2.9
30	.11	1.1	1.4	2.0	---	9.8	85	107	24	9.3	6.1	2.8
31	.12	---	1.4	1.8	---	9.8	---	96	---	10	6.1	---
TOTAL	2.89	14.95	40.76	54.12	63.6	157.5	1392.5	2795	1787	451.0	251.8	125.3
MEAN	.093	.50	1.31	1.75	2.27	5.08	46.4	90.2	59.6	14.5	8.12	4.18
MAX	.30	1.1	2.0	2.3	2.9	10	103	171	135	23	13	5.9
MIN	.04	.12	.55	.92	1.9	2.3	8.1	49	24	9.2	6.1	2.8
AC-FT	5.7	30	81	107	126	312	2760	5540	3540	895	499	249

CAL YR 1978 TOTAL 1178.41 MEAN 3.23 MAX 25 MIN .03 AC-FT 2340
WTR YR 1979 TOTAL 7136.42 MEAN 19.6 MAX 171 MIN .04 AC-FT 14160

08275300 RIO PUEBLO DE TAOS NEAR RANCHITO, NM

LOCATION.--Lat 36°23'38", long 105°37'23", Taos County, Hydrologic Unit 13020101, in Gijosa Grant, on left bank 1,100 ft (340 m) downstream from Rio Fernando de Taos, 1.6 mi (2.6 km) southwest of Ranchito, and at mile 7.9 (12.7 km).

DRAINAGE AREA.--199 mi^2 (515 km^2).

PERIOD OF RECORD.--March 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,747 ft (2,056 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Diversions for irrigation of about 9,000 acres (36 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 29.6 ft^3/s (0.838 m^3/s), 21,450 acre-ft/yr (26.4 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,290 ft^3/s (36.5 m^3/s) May 26, 1979, gage height, 4.82 ft (1.469 m); minimum, 0.21 ft^3/s (0.006 m^3/s) Aug. 24, 1972, result of regulation.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 26	0830	391	11.1	3.71	1.131	May 26	1615	*1290	36.5	4.82	1.469
May 9	0130	448	12.7	3.82	1.164	June 9	0915	1240	35.1	4.77	1.454
May 21	2000	1200	34.0	4.74	1.445						

Minimum discharge, 2.4 ft^3/s (0.068 m^3/s) Oct. 1, 2, 3, 7, 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.6	8.7	16	18	25	21	37	177	534	243	32	11
2	2.5	8.8	18	14	26	25	34	187	526	248	25	14
3	2.6	9.8	17	13	23	25	37	214	520	229	22	11
4	2.7	18	13	15	20	23	32	190	588	214	16	12
5	2.7	17	14	17	21	23	33	175	550	192	15	11
6	2.8	14	15	17	21	25	33	197	473	175	15	9.4
7	2.6	13	14	17	21	32	37	303	468	170	14	10
8	2.7	12	12	14	21	46	45	389	645	157	11	8.4
9	2.6	12	10	14	23	48	65	433	1040	146	9.4	9.0
10	2.7	12	12	15	23	40	71	361	726	132	11	11
11	2.9	12	15	16	23	39	58	243	563	125	12	10
12	2.9	15	15	16	23	44	52	175	518	114	12	9.4
13	3.5	14	15	16	24	44	49	139	508	107	10	9.3
14	3.7	14	16	14	26	40	49	125	529	98	12	12
15	4.3	17	17	17	30	41	60	150	530	97	22	13
16	4.5	15	17	17	31	39	89	200	522	97	25	13
17	5.1	14	17	17	32	37	108	289	487	92	21	13
18	5.4	14	18	19	28	35	151	322	437	93	19	12
19	6.1	14	20	19	30	32	208	372	388	88	21	12
20	6.7	14	20	18	30	31	197	477	332	78	27	11
21	11	14	18	18	27	33	168	1040	290	70	22	12
22	12	15	17	17	26	31	173	840	267	65	22	11
23	10	14	17	17	23	29	234	595	282	60	21	11
24	9.9	16	18	16	22	27	342	570	298	53	22	10
25	10	30	15	17	21	27	349	828	353	47	21	10
26	11	20	16	21	20	27	351	1090	323	43	20	10
27	9.8	18	17	22	21	29	278	1070	306	36	19	10
28	8.4	17	18	20	21	33	235	857	290	30	16	10
29	8.5	15	17	22	---	40	240	768	277	29	13	9.8
30	8.7	16	18	20	---	38	213	699	264	26	11	9.5
31	8.7	---	18	20	---	39	---	588	---	31	12	---
TOTAL	179.6	443.3	500	533	682	1043	4028	14063	13834	3385	550.4	324.8
MEAN	5.79	14.8	16.1	17.2	24.4	33.6	134	454	461	109	17.8	10.8
MAX	12	30	20	22	32	48	351	1090	1040	248	32	14
MIN	2.5	8.7	10	13	20	21	32	125	264	26	9.4	8.4
AC-FT	356	879	992	1060	1350	2070	7990	27890	27440	6710	1090	644

CAL YR 1978 TOTAL 8135.3 MEAN 22.3 MAX 141 MIN 1.6 AC-FT 16140
WTR YR 1979 TOTAL 39566.1 MEAN 108 MAX 1090 MIN 2.5 AC-FT 78480

08275500 RIO GRANDE DEL RANCHO NEAR TALPA, NM

LOCATION.—Lat 36°17'52", long 105°34'55", Taos County, Hydrologic Unit 13020101, in Carson National Forest, Rancho del Rio Grande Grant, on left bank 1.4 mi (2.3 km) downstream from Rito de la Olla (locally known as Pot Creek), 3.2 mi (5.1 km) south of Talpa, 4.3 mi (6.9 km) upstream from Rio Chiquito, and at mile 6.9 (11.1 km).

DRAINAGE AREA.--83 mi² (210 km²), approximately.

PERIOD OF RECORD.--October 1952 to current year. Prior to October 1955, published as Rio Grande del Rancho near Ranchos de Taos, and October 1955 to September 1960 as Rio Grande de Ranchos near Talpa.

GAGE.—Water-stage recorder. Altitude of gage is 7,238 ft (2,206 m), from topographic map. Prior to Nov. 11, 1952, nonrecording gage at site 1,035 ft (320 m) downstream at lower datum. Nov. 11, 1952 to Nov. 5, 1968, water-stage recorder at site 1,000 ft (300 m) downstream at lower datum.

REMARKS.--Records good except those for winter period and those for August and September, which are fair. Minor diversions for irrigation above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--27 years, 19.7 ft³/s (0.558 m³/s), 14,270 acre-ft/yr (17.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 497 ft³/s (14.1 m³/s) May 21, 1973, gage height 3.87 ft (1.180 m); maximum gage height, 4.01 ft (1.222 m) Sept. 10, 1964, site and datum then in use; minimum discharge, 0.2 ft³/s (0.01 m³/s) Jan. 5, 1955, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 60 ft³/s (1.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 9	1430	179	5.07	2.50	0.762
May 27	2230	378	10.7	3.35	1.021
June 8	2345	*414	11.7	3.50	1.067

Minimum discharge, 1.7 ft³/s (0.048 m³/s) Dec. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.2	4.4	4.4	3.0	4.5	5.4	14	82	296	49	16	10
2	3.1	4.4	4.6	2.5	5.6	5.6	13	86	284	46	15	9.6
3	3.1	5.3	3.9	3.0	5.5	5.6	13	91	261	44	14	9.2
4	3.1	9.4	2.5	3.5	5.0	5.5	14	83	247	41	13	8.6
5	3.2	8.2	4.2	4.0	5.0	4.4	19	82	246	39	13	8.6
6	3.2	6.8	4.4	4.1	5.0	4.9	25	97	248	37	12	8.2
7	3.2	6.0	3.3	4.0	5.0	6.3	31	128	245	36	12	8.0
8	3.2	5.5	3.0	3.5	5.0	7.8	36	146	288	34	12	7.5
9	3.2	5.2	2.5	4.0	5.2	8.3	33	165	359	31	12	8.0
10	3.2	5.0	3.0	4.5	5.0	7.2	26	139	294	30	13	8.0
11	3.2	5.2	3.8	4.5	5.1	7.1	26	113	235	29	14	8.0
12	3.5	6.0	4.4	4.7	4.9	8.8	24	98	199	28	13	8.5
13	3.6	5.9	4.5	5.0	5.0	9.8	23	90	186	26	13	8.0
14	3.7	5.6	4.5	4.5	5.1	10	30	96	183	25	14	8.5
15	3.7	5.5	4.5	4.8	5.3	11	39	117	175	25	20	9.0
16	3.7	5.0	4.4	4.9	5.2	12	48	138	166	25	18	8.5
17	3.7	4.2	4.4	4.7	5.3	12	61	172	150	25	16	8.5
18	3.6	3.3	5.3	4.9	4.9	11	85	186	132	24	15	8.5
19	3.7	3.3	6.6	4.8	5.1	11	98	209	116	24	14	8.5
20	3.7	3.6	5.1	4.7	5.9	12	90	233	102	22	14	8.3
21	4.3	4.0	3.6	4.5	5.6	11	85	313	91	21	13	8.9
22	5.9	4.2	4.1	4.8	5.8	11	87	317	83	20	12	8.8
23	5.7	4.4	4.8	5.0	5.3	10	96	295	79	19	12	8.1
24	5.2	4.7	4.4	4.5	5.3	12	100	297	77	18	12	7.6
25	5.6	6.0	5.2	4.0	4.4	13	100	334	76	17	12	7.3
26	5.7	5.4	4.5	5.4	5.1	15	106	342	68	17	12	7.2
27	5.2	5.1	4.7	5.0	5.9	18	98	342	63	16	13	7.2
28	4.9	4.4	4.9	4.5	5.6	17	89	355	58	16	12	7.2
29	4.6	3.7	4.1	4.5	---	16	91	362	55	16	11	6.9
30	4.5	4.4	3.7	4.0	---	17	86	351	53	16	10	6.7
31	4.4	---	3.5	4.0	---	14	---	319	---	16	11	---
TOTAL	123.8	154.1	130.8	133.8	145.6	319.7	1688	6178	5115	832	413	245.9
MEAN	3.99	5.14	4.22	4.32	5.20	10.3	56.3	199	171	26.8	13.3	8.20
MAX	5.9	9.4	6.6	5.4	5.9	18	106	362	359	49	20	10
MIN	3.1	3.3	2.5	2.5	4.4	4.4	13	82	53	16	10	6.7
AC-FT	246	306	259	265	289	634	3350	12250	10150	1650	819	488

CAL YR 1978 TOTAL 6438.1 MEAN 17.6 MAX 202 MIN 2.1 AC-FT 12770
WTR YR 1979 TOTAL 15479.7 MEAN 42.4 MAX 362 MIN 2.5 AC-FT 30700

08275600 RIO CHIQUITO NEAR TALPA, NM

LOCATION.--Lat 36°19'55", long 105°34'42", Taos County, Hydrologic Unit 13020101, in Carson National Forest, Rancho del Rio Grande Grant, on right bank 1 mi (2 km) southeast of Talpa, and at mile 2.1 (3.4 km).

DRAINAGE AREA.--37.0 mi² (95.8 km²).

PERIOD OF RECORD.--March 1957 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 7,223 ft (2,202 m), from topographic map.

REMARKS.--Records good except those for May and June, which are poor. No diversions above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 8.19 ft³/s (0.232 m³/s), 5,930 acre-ft/yr (7.31 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 309 ft³/s (8.75 m³/s) June 8, 1979, gage height, 2.81 ft (0.856 m); maximum gage height, 3.50 ft (1.067 m) May 20, 1973 (backwater from debris); minimum discharge, 0.16 ft³/s (0.005 m³/s) Jan. 31, 1972, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 25 ft³/s (0.7 m³/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft³/s)	(m³/s)	(ft)	(m)	Date	Time	(ft³/s)	(m³/s)	(ft)	(m)
May 8	0015	92	2.61	2.81	0.664	June 8	unknown	*309	8.75	2.81	0.856
a	-	250	7.08	-	-						

a Sometime during period May 26-30

Minimum discharge, 0.51 ft³/s (0.014 m³/s) Dec. 4, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.5	2.3	2.6	2.0	2.2	2.5	4.6	47	130	23	11	6.6
2	1.5	2.3	2.6	1.5	2.5	2.6	3.9	51	110	22	9.8	6.4
3	1.5	2.7	2.1	2.0	2.4	2.6	4.9	54	100	22	9.4	6.2
4	1.5	5.7	.90	2.2	2.3	2.3	3.7	53	100	21	9.1	6.0
5	1.5	4.8	1.8	2.4	2.3	1.9	4.5	53	100	20	8.8	5.8
6	1.5	3.9	2.2	2.3	2.3	2.2	5.0	60	100	20	8.5	5.6
7	1.5	3.6	1.7	2.3	2.3	2.6	5.8	81	100	19	8.2	5.3
8	1.5	3.3	1.5	2.2	2.3	2.8	7.0	80	150	17	8.1	5.2
9	1.5	3.1	1.0	2.5	2.4	2.9	9.4	79	200	16	8.2	5.5
10	1.5	3.0	1.5	2.6	2.3	2.6	9.5	70	160	16	9.1	5.5
11	1.6	3.0	2.0	2.7	2.3	2.6	8.1	61	140	15	9.8	5.5
12	1.4	3.2	2.5	2.6	2.1	3.4	7.6	55	120	14	9.0	5.7
13	1.4	3.1	2.6	2.6	2.0	3.5	6.9	50	115	13	9.0	5.3
14	1.5	2.8	2.7	2.5	2.0	3.9	8.1	52	110	13	10	5.8
15	1.5	3.0	2.8	2.7	2.1	4.0	9.7	56	105	14	15	6.3
16	1.5	2.8	2.8	2.6	2.1	4.1	14	62	100	15	13	5.9
17	1.5	2.4	2.8	2.6	2.1	4.4	18	63	90	13	11	5.5
18	1.5	2.3	2.9	2.7	2.1	4.4	29	66	80	14	9.9	5.2
19	1.5	2.3	3.0	2.7	2.3	4.2	38	68	70	13	9.7	5.1
20	1.6	2.3	2.6	2.4	2.4	4.1	38	81	61	12	9.2	5.1
21	1.8	2.4	1.6	2.1	2.4	4.2	37	137	52	12	8.6	5.4
22	2.5	2.5	2.4	2.3	2.5	4.0	39	163	47	12	8.2	5.4
23	2.4	2.6	2.8	2.5	2.4	4.0	45	177	41	11	8.0	5.0
24	2.2	2.8	2.5	2.2	2.4	3.8	50	148	39	11	7.8	4.8
25	2.4	3.4	2.6	2.0	2.1	4.0	55	168	38	10	7.5	4.6
26	2.5	3.0	2.5	2.8	2.4	4.3	56	180	32	10	7.6	4.5
27	2.4	2.9	2.6	2.5	2.6	4.4	53	180	29	11	8.4	4.8
28	2.4	2.6	2.6	2.5	2.5	4.7	50	190	27	10	7.5	4.8
29	2.3	2.3	2.3	2.5	---	4.9	52	200	26	11	7.0	4.7
30	2.3	2.6	2.3	2.0	---	4.9	50	180	25	10	6.8	4.5
31	2.3	---	2.3	2.0	---	5.1	---	150	---	11	7.0	---
TOTAL	55.5	89.0	71.10	73.5	64.1	111.9	722.7	3115	2597	451	280.2	162.0
MEAN	1.79	2.97	2.29	2.37	2.29	3.61	24.1	100	86.6	14.5	9.04	5.40
MAX	2.5	5.7	3.0	2.8	2.6	5.1	56	200	200	23	15	6.6
MIN	1.4	2.3	.90	1.5	2.0	1.9	3.7	47	25	10	6.8	4.5
AC-FT	110	177	141	146	127	222	1430	6180	5150	895	556	321

CAL YR 1978 TOTAL 2094.10 MEAN 5.74 MAX 61 MIN .90 AC-FT 4150
WTR YR 1979 TOTAL 7793.00 MEAN 21.4 MAX 200 MIN .90 AC-FT 15460

NOTE.--No gage-height record May 25 to June 19.

08276300 RIO PUEBLO DE TAOS BELOW LOS CORDOVAS, NM

LOCATION.--Lat 36°22'39", long 105°40'05", Taos County, Hydrologic Unit 13020101, in Gijosa Grant, on left bank 1.9 mi (3.1 km) southwest of Los Cordovas, 2.5 mi (4.0 km) downstream from Rio Grande del Rancho, and at mile 5.1 (8.2 km).

DRAINAGE AREA.--380 mi² (984 km²).

PERIOD OF RECORD.--March 1957 to current year.

REVISED RECORDS.--WSP 1732: 1957(M). WSP 1923: 1957(P), 1958.

GAGE.--Water-stage recorder. Concrete control since July 16, 1963. Altitude of gage is 6,652 ft (2,028 m), from topographic map.

REMARKS.--Records good except those for December to February, which are fair. Diversions for irrigation of about 12,000 acres (49 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--22 years, 50.5 ft³/s (1.430 m³/s), 36,590 acre-ft/yr (45.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,380 ft³/s (67.4 m³/s) Aug. 24, 1957, gage height, 5.80 ft (1.768 m), from rating curve extended above 900 ft³/s (25 m³/s); minimum, 1.9 ft³/s (0.054 m³/s) July 31, Aug. 1, 1972.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 230 ft³/s (6.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 8	1615	548	15.5	3.66	1.116	May 21	1130	1420	40.2	5.02	1.530
Apr. 25	0645	548	15.5	3.64	1.109	May 26	1745	1620	45.9	*5.44	1.658
May 9	1945	724	20.5	4.03	1.228	June 8	2300	*1780	50.4	5.25	1.600

Minimum discharge, 6.5 ft³/s (0.18 m³/s) Oct. 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.1	15	24	26	30	40	56	332	977	257	39	21
2	7.1	15	22	20	31	49	49	341	1000	260	33	23
3	7.1	15	19	19	28	46	52	387	954	252	30	20
4	7.2	22	18	21	24	41	45	360	958	240	24	20
5	7.2	22	20	25	25	38	51	328	947	223	22	20
6	7.2	20	22	25	25	44	61	361	856	197	23	18
7	7.5	19	20	25	25	88	72	495	822	188	21	18
8	7.9	19	18	20	25	187	89	610	1060	162	18	15
9	8.0	18	15	20	28	135	132	690	1590	148	22	15
10	7.9	17	18	22	28	77	145	620	1280	133	22	18
11	8.4	18	22	23	28	70	118	479	983	123	21	17
12	8.3	21	22	23	28	88	100	375	858	104	20	16
13	8.3	20	22	23	28	81	87	302	817	92	19	16
14	8.5	20	24	21	32	72	95	261	820	85	21	19
15	8.5	24	25	24	35	73	116	316	794	84	35	23
16	8.7	22	25	24	35	68	169	397	779	86	40	22
17	9.3	21	25	24	38	66	206	510	692	81	37	21
18	9.8	21	26	27	35	60	337	578	589	82	34	20
19	10	20	30	27	36	54	438	637	515	79	33	20
20	11	20	30	25	36	51	447	731	450	74	38	20
21	16	20	29	25	35	55	406	1300	387	68	34	21
22	18	20	27	24	35	55	420	1240	351	64	33	21
23	17	20	27	23	35	48	484	970	353	62	32	20
24	16	22	23	22	33	44	518	975	363	58	33	19
25	16	39	21	24	32	43	516	1200	410	53	32	19
26	17	26	23	27	34	45	510	1460	373	51	30	19
27	16	23	25	28	40	47	465	1410	358	46	29	19
28	15	22	26	26	40	53	412	1250	333	41	27	19
29	15	21	25	28	---	62	389	1210	304	38	24	18
30	15	22	26	26	---	58	369	1150	281	35	22	18
31	14	---	26	26	---	61	---	1050	---	37	22	---
TOTAL	340.0	624	725	743	884	1999	7354	22325	21254	3503	870	575
MEAN	11.0	20.8	23.4	24.0	31.6	64.5	245	720	708	113	28.1	19.2
MAX	18	39	30	28	40	187	518	1460	1590	260	40	23
MIN	7.1	15	15	19	24	38	45	261	281	35	18	15
AC-FT	674	1240	1440	1470	1750	3970	14590	44280	42160	6950	1730	1140

CAL YR 1978 TOTAL 12310.0 MEAN 33.7 MAX 303 MIN 4.5 AC-FT 24420
WTR YR 1979 TOTAL 61196.0 MEAN 168 MAX 1590 MIN 7.1 AC-FT 121400

NOTE.--No gage-height record Dec. 24 to Feb. 12.

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM

LOCATION.--Lat 36°19'12", long 105°45'14", in NW¼NE¼ sec. 15, T.24 N., R.11 E., Taos County, Hydrologic Unit 13020101, on left bank 1.7 mi (2.7 km) downstream from bridge on State Highway 96, 2.0 mi (3.2 km) downstream from Rio Pueblo de Taos, 11.8 mi (19.0 km) southwest of Taos, and at mile 1,657.7 (2,667.2 km).

DRAINAGE AREA.--9,730 mi^2 (25,200 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1925 to current year. Prior to October 1930 monthly discharge only, published in WSP 1312. Published as "at Taos Junction Bridge, near Taos" prior to 1934.

REVISED RECORDS.--WSP 788: 1934(M). WSP 828: Drainage area. WSP 1392: 1931-32, 1935, 1937, 1945, 1950.

GAGE.--Water-stage recorder. Datum of gage is 6,050.3 ft (1,844.1 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 14, 1934, at bridge 1.7 mi (2.7 km) upstream at different datum.

REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 620,000 acres (2,500 km^2) in Colorado and 30,000 acres (120 km^2) in New Mexico.

AVERAGE DISCHARGE.--54 years, 721 ft^3/s (20.42 m^3/s), 522,400 acre-ft/yr (644 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,730 ft^3/s (276 m^3/s) June 7, 1948, gage height, 9.18 ft (2.798 m), and June 22, 1949, gage height, 9.23 ft (2.813 m); minimum, 155 ft^3/s (4.39 m^3/s) Sept. 21, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1888, about 14,000 ft^3/s (400 m^3/s) June 19, 1903, from records for Rio Grande at Embudo and estimated inflow. Other floods exceeding 10,000 ft^3/s (280 m^3/s) occurred June 9, 1905, May 28, 1920, and June 16, 1921, from comparison of records for stations near Lobatos and at Embudo.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,600 ft^3/s (45 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Mar. 8	1930	2350	66.6	5.93	1.807	May 9	0545	3310	93.7	6.58	2.006
Mar. 17	0215	2360	66.8	5.94	1.811	June 10	2300	*7560	214	8.57	2.612

Minimum daily discharge, 220 ft^3/s (6.23 m^3/s) Dec. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	240	480	330	354	360	488	748	2060	6400	4040	1380	449
2	245	430	375	335	371	551	707	2010	6290	3930	1310	417
3	245	409	383	330	369	510	701	2050	6040	3810	1200	397
4	245	426	333	328	358	481	658	2210	5610	3830	1100	386
5	240	429	365	351	360	471	641	2340	5320	3680	1010	372
6	239	427	374	351	360	501	627	2260	5300	3430	929	358
7	240	435	350	344	363	692	622	2530	5380	3400	882	343
8	245	451	262	332	369	1200	650	2920	5790	3330	834	328
9	252	445	220	327	367	1190	729	3210	7060	3240	821	308
10	245	433	230	333	369	813	813	2930	7410	3170	825	295
11	245	430	260	333	370	701	867	2490	7390	3180	818	283
12	245	434	280	345	370	771	903	2110	6640	2970	898	273
13	244	434	290	345	376	886	881	1870	5730	2700	886	264
14	242	437	311	332	383	997	853	1690	5390	2570	883	258
15	243	462	322	341	401	1010	839	1680	5460	2370	944	264
16	249	494	332	353	408	1200	876	1840	6000	2180	1020	264
17	258	467	347	352	409	1860	951	2410	6260	2040	992	259
18	332	432	355	385	394	1380	1260	2690	6260	2280	1060	257
19	441	431	413	370	402	1010	1610	2740	5840	2380	1130	249
20	520	425	393	367	444	821	1850	2990	5280	2360	1090	248
21	588	417	362	346	428	774	1980	3880	4660	2360	960	249
22	642	412	367	368	424	809	1960	4310	4380	2270	919	248
23	655	407	367	361	418	751	2070	4260	4270	2160	871	245
24	662	414	360	351	419	750	2250	4370	4220	1990	837	243
25	686	476	359	360	421	752	2410	4810	4400	1930	800	241
26	638	464	356	378	432	795	2420	5630	4480	1760	757	239
27	568	462	355	375	455	849	2250	6030	4550	1610	727	236
28	549	450	361	358	470	843	2140	6020	4480	1540	694	238
29	543	415	359	374	---	778	2020	5950	4320	1510	601	231
30	515	373	362	358	---	758	2050	6180	4250	1430	548	229
31	503	---	363	350	---	766	---	6180	---	1380	490	---
TOTAL	12004	13101	10496	10887	11070	26158	39336	104650	164860	80830	28216	8671
MEAN	387	437	339	351	395	844	1311	3376	5495	2607	910	289
MAX	686	494	413	385	470	1860	2420	6180	7410	4040	1380	449
MIN	239	373	220	327	358	471	622	1680	4220	1380	490	229
AC-FT	23810	25990	20820	21590	21960	51880	78020	207600	327000	160300	55970	17200

CAL YR 1978 TOTAL 163251 MEAN 447 MAX 1200 MIN 202 AC-FT 323800
WTR YR 1979 TOTAL 510279 MEAN 1398 MAX 7410 MIN 220 AC-FT 1012000

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
16...	1130	250	274	8.8	20.0	13.5	3.4	11.5	86	0
NOV										
13...	1030	435	254	8.8	10.0	9.0	3.0	8.4	88	0
JAN										
18...	1710	387	280	8.8	4.5	5.0	6.9	10.8	95	3
24...	1400	351	304	8.4	--	2.0	--	--	--	--
FEB										
22...	1040	414	285	7.1	--	2.0	3.1	--	110	36
MAR										
22...	1045	806	225	8.2	6.5	5.5	18	9.6	83	6
26...	1320	780	240	7.8	--	8.0	--	--	--	--
APR										
24...	1145	2240	150	8.6	23.0	10.0	74	8.6	69	10
25...	1000	2390	179	7.5	--	16.0	--	--	--	--
MAY										
24...	1350	4420	150	8.1	18.0	14.0	75	7.8	58	9
30...	1050	6270	159	7.3	--	14.0	--	--	--	--
JUN										
21...	1115	4660	174	8.0	22.0	16.5	34	7.8	59	0
26...	1140	4600	158	7.9	--	17.0	--	--	--	--
JUL										
* 25...	1320	1930	145	7.8	--	20.0	12	8.2	52	3
26...	1330	1760	144	7.5	--	21.0	--	--	--	--
AUG										
27...	1530	725	200	7.5	--	18.0	--	--	--	--
* 30...	1430	540	220	8.6	23.0	18.0	6.2	7.8	80	0
SEP										
25...	1130	240	300	8.5	20.0	15.0	1.5	10.0	110	0
26...	1100	233	326	8.2	--	13.5	--	--	--	--

* Dip or grab sample

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT									
16...	25	5.8	20	.9	3.3	133	12	129	28
NOV									
13...	26	5.6	17	.8	3.0	96	12	84	32
JAN									
18...	29	5.4	15	.7	3.5	100	6	92	23
24...	--	--	--	--	--	--	--	--	--
FEB									
22...	36	5.9	17	.7	3.3	--	--	78	55
MAR									
22...	25	5.0	14	.7	2.9	94	0	77	35
26...	--	--	--	--	--	--	--	--	--
APR									
24...	21	4.0	7.5	.4	2.1	72	0	59	25
25...	--	--	--	--	--	--	--	--	--
MAY									
24...	18	3.2	6.3	.4	2.3	60	0	49	18
30...	--	--	--	--	--	--	--	--	--
JUN									
21...	18	3.5	9.5	.5	2.4	72	0	59	27
26...	--	--	--	--	--	--	--	--	--
JUL									
25...	16	3.0	7.8	.5	2.7	60	0	49	16
26...	--	--	--	--	--	--	--	--	--
AUG									
27...	--	--	--	--	--	--	--	--	--
30...	24	4.8	13	.6	2.8	96	6	89	27
SEP									
25...	33	7.1	26	1.1	3.2	130	4	113	50
26...	--	--	--	--	--	--	--	--	--

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT									
16...	6.0	.6	28	174	195	.09	.12	.00	.42
NOV									
13...	5.1	.4	25	170	175	.15	.41	.01	.37
JAN									
18...	5.3	.4	28	189	167	.35	.35	.02	.29
24...	--	--	--	--	--	--	--	--	--
FEB									
22...	5.6	.6	25	207	195	--	.00	--	--
MAR									
22...	4.8	.3	22	--	157	.33	.33	.07	.38
26...	--	--	--	--	--	--	--	--	--
APR									
24...	3.4	.2	18	125	118	.26	.28	.07	.85
25...	--	--	--	--	--	--	--	--	--
MAY									
24...	2.3	.4	17	108	98	.07	.08	.08	.68
30...	--	--	--	--	--	--	--	--	--
JUN									
21...	3.1	.3	18	--	118	.06	.07	.02	.90
26...	--	--	--	--	--	--	--	--	--
JUL									
25...	2.4	.2	20	110	98	.11	.11	.03	.14
26...	--	--	--	--	--	--	--	--	--
AUG									
27...	--	--	--	--	--	--	--	--	--
30...	4.0	.4	24	--	154	.09	.18	.01	.37
SEP									
25...	6.0	.7	27	--	222	.15	.18	.03	.31
26...	--	--	--	--	--	--	--	--	--

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)	SAMPLE SOURCE (72005)
OCT									
16...	.51	.020	.00	--	40	8	2.3	.00	--
NOV									
13...	.53	.070	.05	--	40	0	1.9	.00	--
JAN									
18...	.66	.070	.02	--	300	30	3.8	.01	--
24...	--	--	--	--	--	--	--	--	--
FEB									
22...	--	--	.01	50	0	--	--	--	--
MAR									
22...	.78	.080	.07	--	30	10	4.6	.00	--
26...	--	--	--	--	--	--	--	--	--
APR									
24...	1.2	.320	.04	--	80	10	10	.00	--
25...	--	--	--	--	--	--	--	--	--
MAY									
24...	.83	.110	.04	20	40	10	--	--	--
30...	--	--	--	--	--	--	--	--	--
JUN									
21...	.98	.140	.05	--	50	10	--	.00	--
26...	--	--	--	--	--	--	--	--	--
JUL									
25...	.28	.060	.03	--	10	6	5.0	.00	29*
26...	--	--	--	--	--	--	--	--	--
AUG									
27...	--	--	--	--	--	--	--	--	--
30...	.47	.090	.05	30	10	5	--	.00	--
SEP									
25...	.49	.030	.02	--	<10	4	--	.00	--
26...	--	--	--	--	--	--	--	--	--

* Under the heading of SAMPLE SOURCE numerical values are used to indicate sampling method; 29 indicates dip or grab sample.

08276500 RIO GRANDE BELOW TAOS JUNCTION BRIDGE, NEAR TAOS, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT											
16...	1130	--	--	<10	40	8	15	16	10	<3	--
NOV											
13...	1030	--	--	0	40	0	16	14	10	0	--
JAN											
18...	1710	--	--	<10	300	30	30	31	10	<3	--
FEB											
22...	1040	50	--	--	0	--	36	--	--	--	--
MAR											
22...	1045	--	--	0	30	10	6	6	100	30	--
APR											
24...	1145	--	0	0	80	10	4	2	90	10	--
MAY											
24...	1350	20	0	0	40	10	4	4	50	10	--
JUN											
21...	1115	--	2	<10	50	10	2	<10	50	4	--
JUL											
25...	1320	--	<1	<10	10	6	1	<10	50	6	29*
AUG											
30...	1430	30	1	<10	10	5	8	15	10	<3	--
SEP											
25...	1130	--	<1	<10	<10	4	21	16	50	<3	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT		
16...	1130	2
NOV		
13...	1030	24
JAN		
18...	1710	6
APR		
24...	1145	100
JUN		
21...	1115	64
JUL		
25...	1320	34

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SAMPLE SOURCE (72005)
OCT						
16...	1130	250	13.5	19	13	--
NOV						
13...	1030	435	9.0	31	36	--
JAN						
18...	1710	387	5.0	23	24	--
APR						
24...	1145	2240	10.0	555	3360	--
JUL						
25...	1320	1930	20.0	103	537	29*
AUG						
30...	1430	540	18.0	30	44	--
SEP						
25...	1130	240	15.0	8	5.2	--

* Under the heading of SAMPLE SOURCE numerical values are used to indicate sampling method; 29 indicates dip or grab sample.

08279000 EMBUDO CREEK AT DIXON, NM

LOCATION.--Lat 36°12'39", long 105°54'47", in NE¼SE¼ sec.19, T.23 N., R.10 E., Rio Arriba County, Hydrologic Unit 13020101, on right bank 750 ft (230 m) upstream from U.S. Highway 64, 0.5 mi (0.8 km) upstream from mouth, 0.5 mi (0.8 km) east of Embudo Post Office, and 1.7 mi (2.7 km) northwest of Dixon.

DRAINAGE AREA.--305 mi² (790 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1923 to February 1926, October 1926 to September 1955, annual maximum, water years 1956-62, September 1962 to current year. Monthly discharge only for some periods, published in WSP 1312. Figures of daily discharge for July 6-25, 1932, published in WSP 733, and maximum discharges for water years 1931-33, 1935, 1937-38, 1941, are unreliable and should not be used.

REVISED RECORDS.--WSP 1512: 1931-32, 1941, 1947(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 5,858.60 ft (1,785.701 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 30, 1938, at site about 1 mi (2 km) upstream at different datums. Nov. 30, 1938 to Aug. 1, 1941, at site about 0.9 mi (1.4 km) upstream at datum about 59.9 ft (18.26 m) higher. Aug. 2, 1941 to Sept. 1, 1971, at site 750 ft (230 m) downstream at datum 9.10 ft (2.774 m) lower. April 1956 to Sept. 21, 1962, crest-stage gage.

REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 6,500 acres (26 km²), a small part of which is below gage.

AVERAGE DISCHARGE.--48 years (water years 1924-25, 1927-55, 1963-79), 76.7 ft³/s (2.172 m³/s), 55,570 acre-ft/yr (68.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (SINCE 1941).--Maximum discharge, 4,200 ft³/s (119 m³/s) Aug. 29, 1977, gage height, 7.10 ft (2.164 m), from rating curve extended above 1,600 ft³/s (45 m³/s); maximum gage height, 7.6 ft (2.32 m) Aug. 4, 1967; minimum discharge, 0.06 ft³/s (0.002 m³/s) June 26, 27, 1950.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 800 ft³/s (23 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 29	0900	1330	37.7	4.51	1.375	Aug. 15	0630	998	28.3	4.24	1.292
June 9	0200	*2690	76.2	5.40	1.646						

Minimum discharge, 5.5 ft³/s (0.16 m³/s) Oct. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.1	19	34	21	24	33	61	320	917	399	50	34
2	6.2	20	35	16	27	34	52	315	903	378	48	30
3	6.1	23	29	22	26	33	57	330	814	379	42	27
4	5.9	38	22	29	22	32	50	284	774	346	39	25
5	6.1	35	29	31	23	29	51	269	836	310	34	23
6	6.1	35	27	32	23	32	56	315	813	284	33	20
7	6.1	32	22	31	23	36	72	424	803	266	32	17
8	5.9	30	20	21	24	47	89	456	1180	234	31	17
9	6.1	29	18	23	24	54	118	526	1840	207	30	16
10	6.3	27	23	28	25	45	125	453	1340	183	61	22
11	6.4	30	24	26	26	43	104	359	898	156	78	17
12	5.9	32	25	30	27	53	92	303	785	140	57	17
13	5.6	32	29	29	30	58	90	267	692	123	47	17
14	5.9	30	27	23	32	62	113	269	778	109	57	19
15	5.9	30	27	31	38	64	162	315	858	100	120	22
16	5.8	29	26	30	36	66	214	335	850	96	151	21
17	6.4	27	26	29	37	67	239	407	794	97	127	22
18	7.0	26	30	33	32	61	346	410	704	93	119	22
19	7.2	28	74	30	35	55	400	469	642	111	111	22
20	7.6	28	48	26	39	54	378	528	564	105	97	21
21	8.4	29	28	22	34	62	345	639	498	97	82	24
22	13	31	30	23	36	57	348	610	476	99	75	29
23	15	31	30	24	34	54	404	581	468	75	70	26
24	14	32	26	19	33	51	421	584	463	65	65	24
25	16	55	28	18	31	52	423	744	496	55	60	23
26	18	40	27	22	33	56	452	765	457	50	55	21
27	19	37	26	21	36	62	424	1040	441	45	51	21
28	19	31	31	20	34	65	375	1100	428	40	47	20
29	18	29	31	22	---	69	375	1180	423	59	43	19
30	18	34	32	24	---	60	350	1030	412	55	42	18
31	19	---	31	23	---	67	---	931	---	52	36	---
TOTAL	302.0	929	915	779	844	1613	6786	16558	22347	4808	1990	656
MEAN	9.74	31.0	29.5	25.1	30.1	52.0	226	534	745	155	64.2	21.9
MAX	19	55	74	33	39	69	452	1180	1840	399	151	34
MIN	5.6	19	18	16	22	29	50	267	412	40	30	16
AC-FT	599	1840	1810	1550	1670	3200	13460	32840	44330	9540	3950	1300

CAL YR 1978 TOTAL 17124.0 MEAN 46.9 MAX 337 MIN 4.2 AC-FT 33970
WTR YR 1979 TOTAL 58527.0 MEAN 160 MAX 1840 MIN 5.6 AC-FT 116100

08279000 EMBUDO CREEK AT DIXON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1970 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
MAR 26...	1155	54	329	8.1	10.0	160	35	51	6.7	8.5	.3	1.1
MAY 30...	1235	1030	153	7.7	10.0	87	32	30	2.9	2.5	.1	1.0
JUN 26...	1415	444	173	8.2	16.0	79	16	26	3.3	2.6	.1	.9

DATE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
MAR 26...	120	27	7.1	.2	12	--	186	.06	--	--	--
MAY 30...	55	14	2.0	.2	7.3	99	103	.11	.02	20	40
JUN 26...	63	14	1.7	.1	7.7	--	94	.00	--	--	--

08279500 RIO GRANDE AT EMBUDO, NM

LOCATION.--Lat 36°12'20", long 105°57'49", in SW¼SW¼ sec.23, T.23 N., R.9 E., Rio Arriba County, Hydrologic Unit 13020101, on right bank 0.2 mi (0.3 km) downstream from bridge at Embudo, 2.8 mi (4.5 km) downstream from Embudo Creek, and at mile 1,643.1 (2,643.7 km).

DRAINAGE AREA.--10,400 mi^2 (26,940 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--January 1889 to current year. Monthly discharge only for some periods, published in WSP 1312. Figures of daily discharge for Oct. 4 to Nov. 30, 1896, published in WSP 358, are unreliable and should not be used.

REVISED RECORDS.--WSP 358: 1900-1902. WSP 828: Drainage area. WSP 878: 1915-16. WSP 1512: 1892-99, 1904, 1916, 1931-32, 1939, 1944-45, 1950. WSP 1712: 1903(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 5,789.14 ft (1,764.530 m) National Geodetic Vertical Datum of 1929. Jan. 1 to Feb. 28, 1889, nonrecording gage 1.2 mi (1.9 km) upstream at different datum. March 1889 to December 1903, nonrecording gage 1,300 ft (400 m) upstream at different datum. September 1912 to June 1914, water-stage recorder on downstream end of bridge pier at site 200 ft (60 m) upstream at present datum.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres (2,500 km^2) in Colorado and 40,000 acres (160 km^2) in New Mexico. Several observations of water temperature were made during the year. National Weather Service gage-height telemeter at station.

AVERAGE DISCHARGE.--41 years (water years 1890-1930), 1,238 ft^3/s (35.06 m^3/s), 896,900 acre-ft/yr (1.11 km^3/yr); 49 years (water years 1931-79), 778 ft^3/s (22.03 m^3/s), 563,700 acre-ft/yr (695 hm^3/yr), subsequent to upstream development.

EXTREMES FOR PERIOD OF RECORD (1889-1903 AND SINCE 1911).--Maximum discharge, 16,200 ft^3/s (459 m^3/s) June 19, 1903, gage height, about 15.9 ft (4.85 m); minimum daily, 130 ft^3/s (3.68 m^3/s) June 30, 1902.

A flood of about 14,000 ft^3/s (400 m^3/s) occurred between May 20 and June 10, 1905, from a comparison of records for Lobatos and Otowi Bridge. Another major flood occurred Sept. 29 or 30, 1904.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^3/s (57 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Mar. 8	2330	2700	76.5	6.12	1.865	May 9	0830	3700	105	7.24	2.207
Mar. 17	0500	2460	69.7	5.84	1.780	June 9	1130	*9000	255	12.08	3.682

Minimum discharge, 213 ft^3/s (6.03 m^3/s) Dec. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	222	476	378	391	390	521	842	2360	7340	4260	1520	522
2	228	429	395	360	416	595	791	2320	7290	4140	1460	479
3	229	411	438	360	407	591	791	2370	7020	4010	1340	453
4	228	438	355	380	395	520	743	2470	6530	4020	1230	432
5	228	441	411	400	395	503	717	2620	6230	3880	1140	415
6	224	438	395	399	407	510	712	2570	6210	3630	1050	391
7	223	442	399	391	399	661	722	2860	6260	3550	1000	372
8	225	456	283	362	403	1190	770	3250	6760	3470	954	359
9	232	451	240	358	403	1440	877	3610	8770	3360	925	337
10	230	451	250	370	403	1020	969	3330	8610	3260	971	329
11	228	451	350	370	407	814	997	2860	8450	3240	978	308
12	227	460	371	391	407	874	1000	2410	7730	3100	1030	293
13	226	456	385	391	420	1060	981	2170	6800	2830	1020	285
14	224	456	374	366	433	1170	977	1970	6270	2690	1030	278
15	223	484	385	382	456	1130	1020	1960	6270	2510	1160	285
16	227	510	391	399	465	1230	1130	2120	6680	2350	1280	285
17	234	498	405	395	460	1910	1230	2650	6930	2200	1200	282
18	271	460	403	451	447	1570	1550	3030	6890	2370	1250	278
19	381	456	498	425	451	1140	1950	3110	6440	2490	1310	274
20	465	446	476	403	508	919	2150	3370	5740	2460	1280	270
21	533	447	396	382	508	872	2250	4350	5050	2460	1130	274
22	607	447	403	399	485	905	2250	4850	4670	2400	1070	282
23	626	447	403	403	474	843	2360	4850	4470	2290	1020	274
24	632	451	392	386	464	832	2500	4940	4410	2130	979	267
25	660	543	390	399	463	833	2670	5440	4620	2050	936	264
26	623	518	391	425	474	868	2790	6280	4650	1890	884	256
27	553	518	391	416	493	932	2640	7010	4720	1750	847	257
28	525	493	403	391	508	947	2480	7110	4660	1670	810	257
29	521	463	403	411	---	884	2360	7110	4510	1660	706	251
30	502	420	407	390	---	850	2380	7290	4440	1590	644	247
31	488	---	407	380	---	866	---	7210	---	1530	574	---
TOTAL	11245	13857	11968	12126	12341	29000	45599	119850	185420	85240	32728	9556
MEAN	363	462	386	391	441	935	1520	3866	6181	2750	1056	319
MAX	660	543	498	451	508	1910	2790	7290	8770	4260	1520	522
MIN	222	411	240	358	390	503	712	1960	4410	1530	574	247
AC-FT	22300	27490	23740	24050	24480	57520	90450	237700	367800	169100	64920	18950

CAL YR 1978 TOTAL 179008 MEAN 490 MAX 1450 MIN 194 AC-FT 355100
WTR YR 1979 TOTAL 568930 MEAN 1559 MAX 8770 MIN 222 AC-FT 1128000

08281100 RIO GRANDE ABOVE SAN JUAN PUEBLO, NM

LOCATION.--Lat 36°03'58", long 106°04'34", in NE¼SE¼ sec.10, T.21 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020101, in San Juan Pueblo Grant, on left bank 0.8 mi (1.3 km) upstream from bridge on State Highway 74, 1.0 mi (1.6 km) northwest of San Juan Pueblo, 1.8 mi (2.9 km) upstream from Rio Chama, 5.1 mi (8.2 km) north of Espanola, and at mile 1,630.1 (2,622.8 km).

DRAINAGE AREA.--10,550 mi² (27,320 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--March 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,630 ft (1,716 m), from topographic map.

REMARKS.--Records good. Diversions above station for irrigation of about 620,000 acres (2,500 km²) in Colorado and 42,000 acres (170 km²) in New Mexico. Several observations of water temperature were made during the year. San Juan lateral (station 08280100) and San Juan Pueblo ditch (station 08280200), both on left bank, and Guique ditch (station 08280700), on right bank, bypass gage for irrigation of several hundred acres below station. See tabulation below for monthly diversion, as furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--16 years, 700 ft³/s (19.82 m³/s), 507,200 acre-ft/yr (625 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,220 ft³/s (233 m³/s) June 9, 1979, gage height, 6.94 ft (2.115 m); minimum, 92 ft³/s (2.61 m³/s) Aug. 10-11, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--For years of outstanding floods see records for Rio Grande at Embudo (station 08279500).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft³/s (57 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 9	0200	2730	77.3	3.73	1.137
Mar. 17	0815	2480	70.2	3.54	1.079
May 9	1745	3920	111	4.54	1.384
June 9	1230	*8220	233	6.94	2.115

Minimum discharge, about 166 ft³/s (4.70 m³/s) Dec. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	212	501	368	378	380	513	790	2360	7080	4340	1390	457
2	212	459	359	330	422	566	739	2290	7220	4240	1360	419
3	220	447	423	330	424	622	737	2320	7000	4160	1250	395
4	225	458	347	362	417	527	695	2420	6520	4130	1150	380
5	217	453	384	388	404	513	660	2600	6180	3950	1080	363
6	211	453	376	399	410	504	647	2540	6100	3730	992	350
7	206	450	390	384	416	585	652	2800	6080	3650	923	323
8	211	466	290	356	425	1070	693	3310	6390	3540	872	300
9	222	471	220	350	392	1530	806	3790	7850	3400	836	284
10	234	461	236	375	391	1080	923	3660	7670	3280	860	276
11	236	456	337	365	393	781	952	3070	7650	3280	892	265
12	234	455	343	375	393	776	955	2480	7100	3170	916	265
13	237	460	368	383	400	1000	952	2160	6360	2830	938	253
14	247	449	360	357	419	1160	937	1930	5960	2670	941	253
15	241	477	360	362	478	1130	963	1880	5880	2490	1080	259
16	232	496	366	382	466	1190	1070	2030	6140	2300	1220	252
17	226	502	380	384	454	1870	1180	2610	6470	2080	1150	257
18	246	456	393	441	438	1620	1540	3170	6420	2210	1210	254
19	368	444	474	427	431	1150	1920	3250	6120	2400	1270	241
20	478	440	494	396	487	882	2160	3520	5580	2380	1260	241
21	570	435	403	376	507	823	2300	4520	5000	2380	1100	255
22	649	423	395	388	472	868	2300	5100	4710	2310	1010	274
23	666	425	398	405	456	807	2430	5120	4560	2200	962	265
24	672	428	385	380	454	790	2610	5140	4510	2000	907	243
25	703	507	387	390	448	784	2760	5530	4730	1900	866	238
26	680	506	384	412	455	811	2930	6040	4740	1750	803	246
27	588	480	380	406	478	879	2760	6750	4780	1630	759	244
28	551	464	387	380	490	911	2560	6800	4710	1540	716	244
29	541	435	389	394	---	832	2390	6780	4560	1540	641	232
30	522	391	391	380	---	798	2390	6960	4470	1480	577	222
31	510	---	392	340	---	803	---	6940	---	1410	512	---
TOTAL	11567	13748	11559	11775	12200	28175	45401	119870	178540	84370	30443	8550
MEAN	373	458	373	380	436	909	1513	3867	5951	2722	982	285
MAX	703	507	494	441	507	1870	2930	6960	7850	4340	1390	457
MIN	206	391	220	330	380	504	647	1880	4470	1410	512	222
AC-FT	22940	27270	22930	23360	24200	55890	90050	237800	354100	167300	60380	16960
(†)	13	-	-	-	-	-	53	96	63	56	5	14
(††)	129	-	-	-	-	-	-	46	289	482	360	309
(‡)	772	-	-	-	-	-	108	462	334	248	267	107

CAL YR 1978 TOTAL 172225 MEAN 472 MAX 1430 MIN 169 AC-FT 341600
WTR YR 1979 TOTAL 556198 MEAN 1524 MAX 7850 MIN 206 AC-FT 1103000

† Estimated diversion, in acre-feet, by San Juan lateral.
†† Diversion, in acre-feet, by San Juan Pueblo ditch.
‡ Diversion, in acre-feet, by Guique ditch.

08284100 RIO CHAMA NEAR LA PUENTE, NM

LOCATION.--Lat 36°39'45", long 106°37'57", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on right bank 0.7 mi (1.1 km) downstream from Rito de Tierra Amarilla, 3.1 mi (5.0 km) southwest of La Puente, 6.7 mi (10.8 km) upstream from flow line of El Vado Reservoir, and at mile 91.4 (147.1 km).

DRAINAGE AREA.--480 mi^{2} (1,200 km^{2}), approximately.

PERIOD OF RECORD.--October 1955 to current year.

GAGE.--Water-stage recorder. Concrete control since Nov. 9, 1965. Altitude of gage is 7,083 ft (2,159 m), from river-profile map.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 10,300 acres (42 km^{2}) above station (1962 determination). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--24 years, 311 ft^{3}/s (8.808 m^{3}/s), 225,300 acre-ft/yr (278 hm^{3}/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,200 ft^{3}/s (317 m^{3}/s) May 28, 1979, gage height, 6.35 ft (1.935 m), from rating extended above 5400 ft^{3}/s (153 m^{3}/s); minimum, 4.0 ft^{3}/s (0.11 m^{3}/s) Sept. 19, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--A discharge of about 9,000 ft^{3}/s (250 m^{3}/s) occurred Apr. 16, 1937, based on flow of Rio Chama at Los Ojos (Park View) with allowance for tributary inflow. A peak on May 21 or 22, 1926, may have exceeded 10,000 ft^{3}/s (280 m^{3}/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,000 ft^{3}/s (57 m^{3}/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^{3}/s)	(m^{3}/s)	(ft)	(m)	Date	Time	(ft^{3}/s)	(m^{3}/s)	(ft)	(m)
May 7	0145	3440	97.4	4.96	1.512	May 28	2300	a*11200	317	6.35	1.935

a From rating extended above 5400 ft^{3}/s (153 m^{3}/s)

Minimum discharge, 17 ft^{3}/s (0.48 m^{3}/s) Oct. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	57	50	50	45	70	197	2000	3920	835	105	47
2	26	60	55	40	50	75	164	2040	3410	799	96	41
3	25	92	45	45	50	75	167	1860	3460	734	92	39
4	25	112	35	45	40	70	149	1690	3460	794	88	37
5	24	96	40	50	40	70	175	2100	3410	639	79	36
6	24	85	45	60	45	70	262	2550	3200	571	75	36
7	23	74	35	55	45	75	440	3080	3490	619	76	35
8	22	68	25	50	45	85	607	2730	4040	537	73	34
9	22	64	20	40	50	100	679	2150	3220	476	81	33
10	21	61	25	40	50	90	558	1640	2610	415	91	32
11	20	72	30	45	50	110	397	1320	2430	376	111	32
12	20	89	35	50	55	130	311	1170	2440	339	93	31
13	19	79	40	50	60	151	290	1200	2500	303	75	29
14	19	62	45	45	65	154	368	1520	2450	279	88	27
15	25	69	45	45	70	165	631	2020	2380	269	145	33
16	25	64	45	50	65	175	969	2240	2260	256	188	33
17	25	63	45	55	65	187	1160	2560	1980	271	147	31
18	25	60	50	60	60	179	1460	2810	1730	259	117	27
19	27	58	55	60	65	171	1670	4290	1530	234	96	22
20	28	59	50	60	75	168	1450	4860	1300	208	87	22
21	33	63	40	55	70	159	1380	4480	1180	194	82	28
22	46	74	45	60	70	141	1480	5470	1110	185	75	36
23	57	70	45	55	65	139	1730	5570	1070	174	70	32
24	55	71	45	50	70	145	1810	5710	1090	143	64	28
25	81	97	45	55	65	171	1800	5600	1200	133	61	25
26	77	86	45	55	65	219	1850	6690	1040	128	55	25
27	64	77	45	50	75	258	1810	6720	961	126	54	23
28	61	62	45	40	70	257	2010	7300	933	120	52	24
29	58	50	50	50	---	257	2130	7600	859	126	48	25
30	56	55	50	45	---	223	1950	7050	860	136	46	24
31	56	---	50	40	---	247	---	5150	---	123	47	---
TOTAL	1109	2149	1320	1550	1640	4505	30054	113170	65523	10801	2657	927
MEAN	35.8	71.6	42.6	50.0	58.6	148	1002	3651	2184	348	85.7	30.9
MAX	81	112	55	60	75	258	2130	7600	4040	835	188	47
MIN	19	50	20	40	40	70	149	1170	859	120	46	22
AC-FT	2200	4260	2620	3070	3250	9100	59610	224500	130000	21420	5270	1840

CAL YR 1978 TOTAL 112488.9 MEAN 308 MAX 3150 MIN 7.5 AC-FT 223100
WTR YR 1979 TOTAL 235486.0 MEAN 645 MAX 7600 MIN 19 AC-FT 467100

NOTE.--No gage-height record Dec. 22 to Jan. 30.

08284160 AZOTEA TUNNEL AT OUTLET, NEAR CHAMA, NM

LOCATION.--Lat 36°51'12", long 106°40'18", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on left bank at south portal, 0.2 mi (0.3 km) upstream from Azotea Creek, and 6.2 mi (10.0 km) southwest of Chama.

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 7,519.87 ft (2,292.056 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Records represent regulated diversions from Rio Blanco, Little Navajo River, and Navajo River in San Juan River Basin.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--9 years, 128 ft³/s (3.625 m³/s), 92,740 acre-ft/yr (114 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft³/s (33.1 m³/s) May 17, 1978, gage height, 7.85 ft (2.393 m); no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,100 ft³/s (31.2 m³/s) June 14, gage height, 7.55 ft (2.301 m); minimum daily, 0.08 ft³/s (0.002 m³/s) Sept. 26-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.23	.33	.23	.33	.44	.44	15	616	1050	997	144	11
2	.23	.33	.23	.33	.44	.44	10	619	990	964	133	6.4
3	.23	4.8	.23	.33	.44	.44	7.8	543	1050	947	109	4.3
4	.23	8.0	.23	.33	.44	.44	7.8	487	1060	872	100	3.8
5	.23	6.4	.23	.33	.44	.44	11	630	1070	801	76	2.8
6	.23	3.2	.23	.33	.44	.44	27	797	980	770	77	1.7
7	.23	.33	.23	.33	.44	.44	68	812	963	742	79	1.3
8	.23	.23	.23	.33	.44	.44	114	681	1030	695	85	1.2
9	.23	.23	.23	.33	.44	.44	151	539	977	674	108	.99
10	.23	.23	.23	.33	.44	.44	112	421	934	667	111	.99
11	.23	.33	.23	.33	.44	.44	80	356	913	641	141	.84
12	.23	.23	.23	.33	.44	.44	59	291	959	588	125	.69
13	.23	.33	.23	.33	.44	.44	50	328	984	576	104	.56
14	.23	.33	.23	.33	.44	.44	79	499	1040	550	103	.56
15	.23	.33	.23	.33	.44	.44	170	658	1060	538	243	.56
16	.23	.33	.23	.33	.44	6.3	301	705	1020	529	222	.56
17	.23	.33	.33	.33	.44	21	429	768	1070	507	159	.44
18	.23	.33	.33	.33	.44	18	531	872	1020	467	108	.33
19	.23	.23	.33	.33	.44	16	595	1060	920	386	82	.23
20	.23	.23	.33	.33	.44	14	549	1070	807	345	70	.23
21	.23	.23	.33	.33	.44	10	562	1050	823	300	60	.23
22	.23	.23	.33	.33	.44	7.7	633	1080	896	311	49	.23
23	.77	.23	.33	.33	.44	4.7	711	1040	922	308	40	.14
24	4.0	.23	.33	.33	.44	3.9	774	1090	975	271	36	.14
25	1.4	.23	.33	.33	.44	5.7	738	1070	982	243	29	.14
26	.33	.23	.33	.33	.44	14	660	1060	948	226	26	.08
27	.33	.23	.33	.33	.44	24	638	1030	920	200	33	.08
28	.33	.23	.33	.33	.44	19	740	1080	874	183	22	.08
29	.33	.23	.33	.33	---	19	752	1080	927	188	17	.08
30	.33	.33	.33	.33	---	16	642	1080	1030	192	11	.08
31	.33	---	.33	.33	---	20	---	1060	---	162	16	---
TOTAL	13.21	29.48	8.63	10.23	12.32	225.90	10216.6	24472	29194	15840	2718	40.76
MEAN	.43	.98	.28	.33	.44	7.29	341	789	973	511	87.7	1.36
MAX	4.0	8.0	.33	.33	.44	24	774	1090	1070	997	243	11
MIN	.23	.23	.23	.33	.44	.44	7.8	291	807	162	11	.08
AC-FT	26	58	17	20	24	448	20260	48540	57910	31420	5390	81

CAL YR 1978 TOTAL 52509.29 MEAN 144 MAX 993 MIN .23 AC-FT 104200
WTR YR 1979 TOTAL 82781.13 MEAN 227 MAX 1090 MIN .08 AC-FT 164200

08284200 WILLOW CREEK ABOVE HERON RESERVOIR, NEAR LOS OJOS, NM

LOCATION.--Lat 36°44'33", long 106°37'34", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on right bank 200 ft (61 m) downstream from bridge, 0.2 mi (0.3 km) downstream from Iron Spring Creek, 3.3 mi (5.3 km) west of Los Ojos, and at mile 9.7 (15.6 km).

DRAINAGE AREA.--112 mi^2 (290 km^2).

PERIOD OF RECORD.--October and November 1962 (monthly discharge only), December 1962 to current year. Published as "near Park View" prior to 1976.

GAGE.--Water-stage recorder. Concrete control since June 6, 1963. Datum of gage is 7,196.29 ft (2,193.429 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 1, 1971, at site 900 ft (270 m) downstream at lower datum.

REMARKS.--Records represent inflow to Heron Reservoir and since Nov. 17, 1970, include San Juan River water imported through Azotea tunnel (station 08284160).

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--8 years (water years 1963-70), 10.5 ft^3/s (0.297 m^3/s), 7,610 acre-ft/yr (9.38 hm^3/yr), prior to completion of Azotea tunnel; 9 years (water years 1971-79), 139 ft^3/s (3.936 m^3/s), 100,700 acre-ft/yr (124 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,600 ft^3/s (45.3 m^3/s) Aug. 11, 1967, gage height, 3.88 ft (1.182 m), site and datum then in use, prior to completion of Azotea tunnel; no flow at times most years prior to 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,460 ft^3/s (41.3 m^3/s) Apr. 18, gage height, 5.63 ft (1.716 m); minimum daily, 0.03 ft^3/s (0.001 m^3/s) Jan. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.3	.17	.22	.16	2.1	11	80	667	1070	990	150	10
2	2.1	.16	.27	.12	2.1	8.2	55	672	994	971	138	7.0
3	1.1	.70	.26	.09	2.6	7.0	48	593	1060	929	116	4.0
4	.48	6.5	.15	.03	2.9	6.5	46	524	1080	881	108	2.5
5	.49	4.4	.13	.03	2.9	6.2	100	653	1090	802	82	1.9
6	.26	3.4	.16	.10	2.9	7.0	238	794	1010	768	77	1.6
7	.40	2.0	.21	.19	2.9	7.4	438	862	965	744	83	.59
8	.74	.52	.12	.15	2.9	9.5	547	732	1040	699	77	.45
9	1.9	.26	.11	.18	2.6	12	456	606	987	666	114	.38
10	2.1	.19	.13	.18	2.5	11	362	482	942	670	106	.27
11	2.3	.24	.11	.18	3.7	11	212	392	910	658	135	.20
12	2.3	.46	.10	.19	10	13	151	350	958	592	122	.15
13	2.0	1.2	.11	.20	10	16	162	360	984	578	108	.12
14	1.8	.59	.10	.21	9.0	21	344	484	1040	555	111	.11
15	1.8	.45	.09	.23	9.0	26	589	678	1080	548	209	.12
16	1.4	.40	.07	.26	9.1	34	682	708	1030	550	227	.12
17	.72	.27	.07	.49	8.2	54	834	774	1080	500	169	.12
18	.40	.24	.10	.63	9.0	66	796	846	1040	474	118	.11
19	.27	.21	.50	.88	7.0	68	870	1060	941	393	93	.10
20	.21	.30	.49	1.8	7.4	64	710	1060	792	333	82	.09
21	.23	.15	.59	1.6	7.4	75	686	1040	801	291	68	.08
22	.36	.19	.67	1.9	7.0	57	754	1090	875	308	57	.08
23	.29	1.4	.59	1.4	7.0	57	845	1050	894	296	45	.08
24	.26	.23	.40	1.2	5.4	73	876	1090	965	267	38	.11
25	3.1	.88	.30	1.6	6.6	96	820	1090	985	247	32	.13
26	1.6	.95	.15	1.9	8.6	136	754	1080	945	227	25	.15
27	.59	.88	.11	2.0	6.6	157	697	1040	912	208	32	.13
28	.34	.43	.09	1.9	6.7	160	786	1080	867	188	24	.15
29	.24	.29	.10	1.9	---	150	818	1080	885	192	16	.15
30	.19	.22	.11	1.9	---	126	698	1070	1050	204	12	.15
31	.18	---	.13	2.0	---	124	---	1060	---	173	14	---
TOTAL	32.45	28.28	6.74	25.60	164.1	1669.8	15454	25067	29292	15902	2788	31.14
MEAN	1.05	.94	.22	.83	5.86	53.9	515	809	976	513	89.9	1.04
MAX	3.1	6.5	.67	2.0	10	160	876	1090	1090	990	227	10
MIN	.18	.15	.07	.03	2.1	6.2	46	350	792	173	12	.08
AC-FT	64	56	13	51	325	3310	30650	49720	58100	31540	5530	62

CAL YR 1978 TOTAL 54010.98 MEAN 148 MAX 1020 MIN .02 AC-FT 107100
WTR YR 1979 TOTAL 90461.11 MEAN 248 MAX 1090 MIN .03 AC-FT 179400

08284300 HORSE LAKE CREEK ABOVE HERON RESERVOIR, NEAR LOS OJOS, NM

LOCATION.--Lat 36°42'24", long 106°44'42", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on right bank 3.7 mi (6.0 km) northwest of Heron Dam, 7.8 mi (12.6 km) downstream from Horse Lake, and 9.9 mi (15.9 km) west of Los Ojos.

DRAINAGE AREA.--45 mi² (120 km²), approximately.

PERIOD OF RECORD.--October and November 1962 (monthly discharge only), December 1962 to current year. No winter records subsequent to 1973. Published as "near Park View" prior to 1976.

GAGE.--Water-stage recorder. Concrete control since June 10, 1963. Datum of gage is 7,188.85 ft (2,191.161 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to July 1, 1971, at site 1,100 ft (340 m) upstream at higher datums.

REMARKS.--Diversions above station for irrigation of meadows and for off-channel stock tanks.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--11 years (water years 1963-73), 1.10 ft³/s (0.031 m³/s), 797 acre-ft/yr (983,000 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,960 ft³/s (112 m³/s) July 30, 1968, gage height, 4.9 ft (1.49 m), site and datum then in use, from rating curve extended above 37 ft³/s (1.05 m³/s) on basis of slope-area measurements at gage heights 3.20 ft (0.975 m) and 4.9 ft (1.49 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 6	1500	104	2.95	2.51	0.765
Apr. 7	1730	116	3.29	2.59	.789
Apr. 8	1800	*128	3.62	2.67	0.814

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00					---	8.7	4.2	.11	.00	.00	.00
2	.00					---	5.8	3.0	.14	.00	.00	.00
3	.00					---	5.6	3.0	.11	.00	.00	.00
4	.00					---	5.4	3.1	.08	.00	.00	.00
5	.00					---	17	1.9	.10	.00	.00	.00
6	.00					---	41	1.5	.07	.00	.00	.00
7	.00					---	53	1.2	.02	.00	.00	.00
8	.00					---	61	1.2	.04	.00	.00	.00
9	.00					---	42	2.5	.24	.00	.00	.00
10	.00					---	42	2.3	.07	.00	.00	.00
11	.00					---	15	1.8	.04	.00	.00	.00
12	.00					---	8.4	1.4	.04	.00	.00	.00
13	.00					---	12	.76	.00	.00	.00	.00
14	.00					---	31	.48	.00	.00	.00	.00
15	.00					---	44	.42	.00	.00	.00	.00
16	.00					---	39	.48	.00	.00	.00	.00
17	.00					---	36	.64	.00	.00	.00	.00
18	.00					---	32	.76	.00	.00	.00	.00
19	.00					14	28	.39	.00	.00	.00	.00
20	.00					16	18	.35	.00	.00	.00	.00
21	.00					11	17	1.0	.00	.00	.00	.00
22	.00					8.9	18	1.1	.00	.00	.00	.00
23	.00					8.4	16	.57	.00	.00	.00	.00
24	.00					14	12	.48	.00	.00	.00	.00
25	.00					24	7.4	.72	.00	.00	.00	.00
26	.00					34	6.1	.84	.00	.00	.00	.00
27	.00					30	4.8	.72	.00	.00	.00	.00
28	.00					25	3.9	1.1	.00	.00	.00	.00
29	.00					26	3.3	1.4	.00	.00	.00	.00
30	.00					23	3.3	.57	.00	.00	.00	.00
31	.00					18	---	.26	---	.00	.00	---
TOTAL	.00					---	636.7	40.14	1.06	.00	.00	.00
MEAN	.000					---	21.2	1.29	.035	.000	.000	.000
MAX	.00					---	61	4.2	.24	.00	.00	.00
MIN	.00					---	3.3	.26	.00	.00	.00	.00
AC-FT	.00					---	1260	80	2.1	.00	.00	.00

08284510 HERON RESERVOIR NEAR LOS OJOS, NM

LOCATION.--Lat 36°39'56", long 106°42'13", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, at Heron Dam on Willow Creek, 0.2 mi (0.3 km) upstream from Rio Chama, 5.1 mi (8.2 km) northeast of El Vado Dam, and 8.7 mi (14.0 km) southwest of Los Ojos.

DRAINAGE AREA.--193 mi² (500 km²).

PERIOD OF RECORD.--October 1970 to current year. Published as "near Park View" prior to 1976.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Mar. 24, 1971, nonrecording gage.

REMARKS.--Reservoir is formed by earthfill dam; storage began Oct. 21, 1970. Total capacity 401,300 acre-ft (495 hm³) at elevation 7,186.1 ft (2,190.32 m), low point on crest of uncontrolled spillway, including 1,340 acre-ft (1.65 hm³) of dead storage at elevation 7,003.0 ft (2,134.51 m), invert of gate sill of outlet tunnel. Reservoir is used for storage of transmountain water from San Juan River basin and for recreation. Figures given herein represent total storage.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 301,800 acre-ft (372 hm³) Aug. 26, 1979, elevation, 7,167.87 ft (2,184.767 m); no storage prior to Oct. 21, 1970.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 301,800 acre-ft (372 hm³) Aug. 26, elevation, 7,167.87 ft (2,184.767 m); minimum, 145,100 acre-ft (179 hm³) Apr. 5, elevation, 7,129.72 ft (2,173.139 m).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Bureau of Reclamation in 1971)

7,120	116,500	7,150	219,800
7,130	146,000	7,160	263,900
7,140	180,400	7,170	312,600

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	185100	184200	183800	148000	149200	150200	148400	166300	215200	271400	298500	301400
2	185100	184100	183900	148000	149300	150300	147500	167100	217200	273300	298600	301400
3	185000	184300	183800	148000	149300	150300	146600	168200	219200	275100	298800	301300
4	184900	184300	183800	148000	149300	150300	145600	169100	221300	276800	298900	301200
5	184800	184200	183800	148100	149300	150400	145300	170400	223400	278300	299000	301300
6	184800	184200	183800	148100	149300	150400	145800	171900	225300	279700	299000	300900
7	184700	184100	183600	148100	149300	150400	146500	173600	227200	281100	299200	300700
8	184600	184100	183200	148100	149300	150500	147600	175100	229400	282300	299100	300700
9	184600	184000	182600	148200	149400	150600	147800	176200	231300	283500	299200	300600
10	184500	184000	182000	148200	149400	150700	147300	176900	233200	284800	299400	300700
11	184500	184100	180900	148200	149400	150800	146300	177500	235000	285900	299600	300300
12	184400	184200	179100	148400	149400	150800	146000	178100	236800	287000	299900	300000
13	184400	184100	177300	148400	149400	151000	146300	178700	238800	288200	300000	299700
14	184300	184200	175300	148400	149500	151100	147100	179600	240800	289200	300200	299700
15	184300	184200	173100	148500	149500	151300	148400	180800	242700	290200	300600	299700
16	184300	184100	170900	148500	149600	151400	149200	182100	244500	291100	301000	299600
17	184200	184100	169000	148600	149600	151600	149300	183800	246500	292000	301300	299500
18	184200	184000	167100	148700	149600	151700	149200	185400	248500	292800	301400	299400
19	184100	184000	164900	148700	149700	151900	149700	187600	250000	293500	301500	299200
20	184100	184000	162900	148800	149700	152100	150400	189900	251600	294100	301600	299100
21	184200	183900	160700	148800	149900	152100	151300	192100	253000	294500	301600	299200
22	184200	183900	158600	148800	149900	152000	152400	194100	254800	295100	301600	299200
23	184100	183900	156400	148800	150000	151700	154000	196200	256600	295600	301600	299100
24	184200	184000	154300	148800	150100	151600	155900	198500	258500	296000	301600	299100
25	184300	184100	152100	148900	150100	151500	157600	200900	260400	296400	301600	299000
26	184300	184100	149900	149000	150100	151500	159200	203000	262300	296800	301600	298900
27	184300	184100	148400	149000	150200	151300	160600	205200	264000	297200	301600	298800
28	184300	184000	147900	149000	150200	150900	162100	207200	265700	297500	301600	298800
29	184200	183800	148000	149000	---	150200	164000	209200	267400	297800	301500	298800
30	184200	183800	148000	149100	---	149600	165300	211100	269400	298100	301500	298700
31	184200	---	148000	149100	---	149100	---	212900	---	298400	301500	---
MAX	185100	184300	183900	149100	150200	152100	165300	212900	269400	298400	301600	301400
MIN	184100	183800	147900	148000	149200	149100	145300	166300	215200	271400	298500	298700
(†)	7141.00	7140.89	7130.64	7130.97	7131.30	7130.97	7135.79	7148.34	7161.19	7167.17	7167.80	7167.23
(‡)	-900	-400	-35800	+1100	+1100	-1100	+16200	+47600	+56500	+29000	+3100	-2800

CAL YR 1978 MAX 191600 MIN 113600 ‡ +34300
WTR YR 1979 MAX 301600 MIN 145300 ‡ +113600

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08284520 WILLOW CREEK BELOW HERON DAM, NM

LOCATION.--Lat 36°39'56", long 106°42'13", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, in outlet conduits of Heron Dam, 0.2 mi (0.3 km) upstream from Rio Chama, 5.1 mi (8.2 km) northeast of El Vado Dam, and 8.7 mi (14.0 km) southwest of Los Ojos.

DRAINAGE AREA.--193 mi² (500 km²).

PERIOD OF RECORD.--January 1971 to current year.

GAGE.--Totalizing flowmeters in each of two outlet conduits in Heron Dam.

REMARKS.--Flow regulated by Heron Reservoir (station 08284510) since Oct. 21, 1970. Outlet conduits are 14-in (0.356 m) and 120-in (3.048 m) in diameter.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--8 years, 96.8 ft³/s (2.741 m³/s), 70,130 acre-ft/yr (86.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,220 ft³/s (62.9 m³/s) Dec. 12, 1973; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,100 ft³/s (31.2 m³/s) Dec. 15-21; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	516	193	.00	.00	22	.00
2	.00	.00	.00	.00	.00	.00	516	196	.00	5.2	.00	.00
3	6.4	.00	.00	.00	.00	.00	516	67	.00	14	.00	.00
4	7.1	.00	.00	.00	.00	.00	581	13	.00	19	.00	.00
5	.00	.00	.00	.00	.00	.00	302	21	.00	19	.00	69
6	.00	.00	.00	.00	.00	.00	139	21	.00	19	.00	66
7	.00	25	38	.00	.00	.00	246	21	.00	19	56	.00
8	.00	17	193	.00	.00	.00	246	21	.00	19	38	.00
9	.00	.00	290	.00	.00	.00	534	36	.00	9.6	.00	.00
10	.00	.00	290	.00	.00	.00	741	47	.00	.00	.00	116
11	.00	.00	591	.00	.00	.00	742	33	.00	.00	.00	85
12	.00	.00	860	.00	.00	.00	320	24	8.4	.00	.00	80
13	.00	.00	860	.00	.00	.00	45	24	19	.00	.00	9.9
14	.00	.00	1000	.00	.00	.00	45	24	21	.00	48	5.1
15	.00	.00	1100	.00	.00	20	45	11	39	.00	33	.00
16	.00	.00	1100	.00	.00	45	419	.00	39	4.9	.00	.00
17	8.0	.00	1100	.00	.00	45	975	.00	39	9.6	.00	41
18	5.2	.00	1100	.00	.00	45	1080	.00	40	4.8	.00	34
19	.00	.00	1100	.00	.00	46	727	.00	21	.00	.00	.00
20	.00	.00	1100	.00	.00	80	400	.00	.00	.00	.00	.00
21	.00	.00	1100	.00	.00	157	301	14	.00	.00	.00	.00
22	.00	.00	1090	.00	.00	191	301	31	.00	.00	.00	.00
23	.00	.00	1090	.00	.00	216	126	31	.00	.00	.00	.00
24	7.4	.00	1090	.00	.00	217	.00	31	.00	.00	.00	.00
25	6.2	.00	1090	.00	.00	217	.00	41	.00	.00	.00	.00
26	.00	.00	1090	.00	.00	291	.00	48	.00	.00	.00	.00
27	.00	.00	768	.00	.00	418	.00	48	5.1	.00	.00	.00
28	.00	29	220	.00	.00	452	.00	135	3.8	.00	.00	2.7
29	.00	48	.00	.00	---	607	.00	156	.00	.00	.00	7.4
30	.00	31	.00	.00	---	552	75	105	.00	.00	.00	7.4
31	.00	---	.00	.00	---	516	---	57	---	29	.00	---
TOTAL	40.30	150.00	18260.00	.00	.00	4115.00	9938.00	1449.00	235.30	172.10	197.00	523.50
MEAN	1.30	5.00	589	.000	.000	133	331	46.7	7.84	5.55	6.35	17.5
MAX	8.0	48	1100	.00	.00	607	1080	196	40	29	56	116
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	80	298	36220	.00	.00	8160	19710	2870	467	341	391	1040

CAL YR 1978 TOTAL 35951.10 MEAN 98.5 MAX 1100 MIN .00 AC-FT 71310
WTR YR 1979 TOTAL 35080.20 MEAN 96.1 MAX 1100 MIN .00 AC-FT 69580

08285000 EL VADO RESERVOIR NEAR TIERRA AMARILLA, NM

LOCATION.--Lat 36°35'39", long 106°44'00", Rio Arriba County, Hydrologic Unit 13020102, Tierra Amarilla Grant, at outlet tower of dam on Rio Chama, at village of El Vado, 12.4 mi (20.0 km) southwest of Tierra Amarilla, and at mile 77.7 (125.0 km).

DRAINAGE AREA.--873 mi^2 (2,261 km^2), of which about 100 mi^2 (260 km^2) probably is noncontributing.

PERIOD OF RECORD.—January 1935 to September 1965 (monthend contents only), October 1965 to current year. Prior to October 1967, contents at about 0730 hrs.

GAGE.—Water-stage recorder. Prior to October 1967, nonrecording gage only below gage height 6,879.3 ft (2,096.81 m). Datum of gage is 8.21 ft (2.502 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by rockfill dam, steel faced. Storage began in January 1935. Capacity 196,500 acre-ft (242 hm^3) between gage heights 6,759.0 ft (2,060.14 m) and 6,902.0 ft (2,103.73 m), top of spillway gate. Dead storage, 1,060 acre-ft (1.31 hm^3) below 6,775.0 ft (2,065.02 m), sill of outlet works. Figures given herein represent total contents. Reservoir is used to impound water for irrigation by Middle Rio Grande Conservancy District and, since December 1972, for storage of contract water from San Juan-Chama Project. Rehabilitation of outlet works, completed in December 1966, increased valve-controlled release from about 1,750 ft^3/s (50 m^3/s) to about 6,000 ft^3/s (170 m^3/s).

COOPERATION.—Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.—Maximum contents, 204,900 acre-ft (253 hm^3), of which 7,400 acre-ft (9.12 hm^3) was uncontrolled storage, June 4, 5, 1948, gage height, 6,904.2 ft (2,104.40 m); no storage at times prior to December 1966.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 178,400 acre-ft (220 hm^3) June 25, gage height, 6,896.49 ft (2,102.050 m); minimum, 23,130 acre-ft (28.5 hm^3) Dec. 4, gage height, 6,813.9 ft (2,076.88 m).

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Bureau of Reclamation in 1966)

6,810	19,730	6,860	86,770
6,820	29,110	6,880	130,800
6,840	53,770	6,900	189,810

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23290	23210	23210	52550	52460	52420	52340	52290	133400	177500	177300	176700
2	23270	23210	23220	52520	52480	52430	52220	52150	138200	177400	177200	176600
3	23280	23250	23190	52500	52480	52430	52390	52000	144200	177400	177200	176500
4	23300	23300	23130	52460	52450	52420	52420	51650	150200	177700	177100	175700
5	23300	23320	23180	52480	52430	52410	52420	52360	155200	177700	177000	173900
6	23300	23260	23240	52490	52420	52380	52620	53240	159100	177500	176900	172100
7	23300	23190	23210	52530	52410	52390	53140	51540	162200	177600	176800	170100
8	23290	23180	23200	52490	52390	52460	54050	52100	166100	177300	177000	168300
9	23290	23170	23190	52450	52380	52450	54740	51540	168700	177200	176900	166300
10	23240	23160	23190	52450	52380	52350	54050	51480	169300	177300	176900	164500
11	23210	23200	23300	52430	52380	52270	52740	51830	170600	177500	177000	163000
12	23200	23260	23890	52500	52390	52290	52270	52170	173200	177800	177000	161700
13	23200	23240	25080	52500	52390	52430	52250	52550	176300	177900	176900	160000
14	23190	23210	26490	52530	52420	52620	52210	53840	177800	178000	176900	158300
15	23190	23180	28110	52490	52430	52770	52490	56740	177800	178000	177100	156700
16	23180	23180	29790	52410	52460	52630	52560	60110	177300	178000	177400	155000
17	23180	23190	31460	52410	52490	52620	52480	64380	176600	178000	177400	154100
18	23180	23210	33400	52450	52490	52520	52890	68550	176500	178000	177400	154100
19	23170	23210	35450	52460	52500	52410	52040	73290	176800	177700	177400	154100
20	23150	23220	37510	52430	52530	52350	51870	77430	177300	177500	177300	154000
21	23180	23210	39640	52390	52490	52450	51760	81090	177500	177500	177300	154000
22	23230	23210	41820	52430	52430	52450	52000	85380	177700	177500	177200	154100
23	23240	23210	44040	52410	52420	52380	52200	89880	177900	177400	177100	154000
24	23250	23230	46220	52450	52420	52350	52250	94310	178100	177400	177000	154000
25	23250	23300	48430	52500	52360	52420	52070	98420	178300	177400	177000	154000
26	23230	23320	50600	52490	52380	52590	51940	103400	178100	177400	177000	153900
27	23210	23270	51960	52450	52420	52740	51780	108000	177700	177400	176900	153900
28	23200	23190	52390	52380	52430	52520	52270	113800	177500	177400	177000	152900
29	23180	23160	52480	52390	---	52360	53060	119700	177500	177400	176800	150900
30	23180	23210	52530	52410	---	52290	52890	124900	177500	177400	176800	149200
31	23190	---	52550	52420	---	52410	---	128900	---	177300	176800	---
MAX	23300	23320	52550	52550	52530	52770	54740	128900	178300	178000	177400	176700
MIN	23150	23160	23130	52380	52360	52270	51760	51480	133400	177200	176800	149200
(†)	6813.9	6814.0	6839.1	6839.05	6839.06	6839.04	6839.38	6879.25	6896.20	6896.15	6895.98	6886.78
(‡)	-120	+20	+29340	-130	+10	-20	+480	+76010	+48600	-200	-500	-27600

CAL YR 1978 MAX 84580 MIN 23130 ‡ +26120
WTR YR 1979 MAX 178300 MIN 23130 ‡ +125890

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

08285500 RIO CHAMA BELOW EL VADO DAM, NM

LOCATION:--Lat 36°34'48", long 106°43'24", Rio Arriba County, Hydrologic Unit 13020102, in Tierra Amarilla Grant, on left bank 1.5 mi (2.4 km) downstream from El Vado Dam, 2.8 mi (4.5 km) upstream from Rio Nutrias, 13 mi (21 km) southwest of Tierra Amarilla, and at mile 76.2 (122.6 km).

DRAINAGE AREA.--877 mi^2 (2,271 km^2), of which about 100 mi^2 (260 km^2) is probably noncontributing.

PERIOD OF RECORD.--October 1913 to November 1915, April to November 1916, March, April 1920, September 1920 to August 1924, October 1935 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "Chama River" prior to 1935, as "near Tierra Amarilla" 1913-14, 1935-47, as "near El Vado" 1915-16, and as "at El Vado" 1920-24.

REVISED RECORDS.--WSP 1312: 1914, 1949. WSP 1392: 1949.

GAGE.--Water-stage recorder. Datum of gage is 6,696.12 ft (2,040.977 m) National Geodetic Vertical Datum of 1929. Prior to October 1935, at site 1.5 mi (2.4 km) upstream at different datum. October 1935 to September 1938 at site 1.1 mi (1.8 km) upstream at datum 30.34 ft (9.248 m) higher.

REMARKS.--Records good. Flow regulated by El Vado Reservoir (station 08285000) since 1935. Flow affected by release of transmountain water from Heron Reservoir (station 08284510) since May 1971. Diversions for irrigation of about 10,600 acres (43 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--5 years (water years 1914-15, 1921-23) 448 ft^3/s (12.69 m^3/s), 324,600 acre-ft/yr (400 hm^3/yr), prior to completion of El Vado Dam; 35 years (water years 1936-70), 373 ft^3/s (10.56 m^3/s), 270,200 acre-ft/yr (333 hm^3/yr), prior to release of transmountain water; 9 years (water years 1971-79), 367 ft^3/s (10.39 m^3/s), 265,900 acre-ft/yr (328 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,000 ft^3/s (255 m^3/s) May 22, 1920, gage height, 12 ft (3.7 m), site and datum then in use, from rating curve extended above 3,500 ft^3/s (99 m^3/s); no flow Mar. 25, 26, 31, 1955. Maximum discharge since construction of El Vado Dam in 1935, 6,010 ft^3/s (170 m^3/s) May 17, 1941, gage height, 6.89 ft (2.100 m).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 4 or 5, 1911, was greater than floods in September 1904 and May 1920, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,960 ft^3/s (112 m^3/s) May 7, gage height, 5.97 ft (1.820 m); minimum, 18 ft^3/s (0.51 m^3/s) Dec. 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	30	50	65	54	56	83	798	2490	1740	768	111	52
2	27	56	74	54	69	83	752	2330	819	768	91	52
3	20	72	74	54	74	86	626	2040	466	668	91	52
4	20	83	53	80	74	86	730	1850	377	595	94	455
5	20	83	33	78	74	86	543	1760	797	598	94	995
6	20	112	46	60	74	86	376	2230	1640	599	81	992
7	20	121	82	60	74	86	584	3320	2010	598	112	992
8	20	88	196	81	74	86	584	3250	1880	599	109	988
9	20	65	314	78	69	126	1050	2430	2040	478	94	987
10	34	65	314	63	65	166	1930	1690	2210	330	98	983
11	37	65	549	69	65	166	1930	1150	1620	222	81	902
12	19	65	604	63	65	128	995	998	910	177	92	740
13	19	82	323	56	65	99	415	1000	778	199	107	840
14	19	86	323	56	65	114	459	832	1540	215	112	842
15	19	74	314	98	65	172	615	508	2280	211	98	833
16	21	65	304	114	69	314	1440	517	2420	211	69	836
17	27	53	304	76	74	314	2320	525	2240	211	69	502
18	30	49	227	65	74	314	2420	802	1650	273	86	61
19	31	49	170	76	74	314	2790	1630	1230	315	99	26
20	35	58	142	83	83	314	2220	2340	996	228	83	25
21	27	67	77	83	101	314	1810	2370	997	164	83	27
22	28	67	81	60	116	364	1810	2380	934	164	89	27
23	42	67	40	42	99	423	1700	2580	890	163	74	27
24	71	70	40	40	88	423	1780	2780	890	125	65	27
25	95	74	40	49	86	423	1950	2750	1000	91	65	27
26	91	74	61	80	78	501	1940	2770	1080	99	65	33
27	72	102	117	99	67	701	1920	2760	1080	96	63	33
28	63	127	76	99	76	979	1790	2660	963	96	55	516
29	63	112	30	79	---	1100	1800	2680	800	96	40	1000
30	53	84	54	56	---	911	2100	2700	768	96	31	870
31	46	---	56	56	---	798	---	2370	---	113	42	---
TOTAL	1139	2285	5183	2161	2113	10160	42177	62492	39045	9566	2543	14742
MEAN	36.7	76.2	167	69.7	75.5	328	1406	2016	1302	309	82.0	491
MAX	95	127	604	114	116	1100	2790	3320	2420	768	112	1000
MIN	19	49	30	40	56	83	376	508	377	91	31	25
AC-FT	2260	4530	10280	4290	4190	20150	83660	124000	77450	18970	5040	29240

CAL YR 1978 TOTAL 136055 MEAN 373 MAX 3340 MIN 15 AC-FT 269900
WTR YR 1979 TOTAL 193606 MEAN 530 MAX 3320 MIN 19 AC-FT 384000

08286500 RIO CHAMA ABOVE ABIQUIU RESERVOIR, NM

LOCATION.--Lat 36°19'06", long 106°35'50", Rio Arriba County, Hydrologic Unit 13020102, on left bank 40 ft (12 m) downstream from site of former bridge, 7.7 mi (12.4 km) downstream from Rio Gallina, 9 mi (14 km) northwest of Youngsville, 15.6 mi (25.1 km) upstream from Abiquiu Dam, 30.3 mi (48.8 km) downstream from El Vado Dam, and at mile 47.4 (76.3 km).

DRAINAGE AREA.--1,600 mi^2 (4,144 km^2), of which about 100 mi^2 (260 km^2) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--August 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,275 ft (1,913 m), from topographic map.

REMARKS.--Water-discharge records good prior to December and fair thereafter. Flow regulated by El Vado Reservoir (station 08285000). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions for irrigation of about 15,000 acres (61 km^2) above station.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 358 ft^3/s (10.14 m^3/s), 259,400 acre-ft/yr (320 hm^3/yr), prior to release of transmountain water; 9 years (water years 1971-79), 392 ft^3/s (11.10 m^3/s), 284,000 acre-ft/yr (350 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,550 ft^3/s (185 m^3/s) May 20, 1973, gage height, 8.70 ft (2.652 m); minimum 7.5 ft^3/s (0.21 m^3/s) Oct. 17, 18, 1963.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred on Sept. 29, 1904, Oct. 4 or 5, 1911, and May 22, 1920.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,530 ft^3/s (100 m^3/s) May 8, gage height, 6.62 ft (2.018 m); minimum, 18 ft^3/s (0.51 m^3/s) Jan. 3, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	37	49	82	60	70	90	824	2470	2210	762	125	44
2	36	52	79	56	75	95	778	2440	1430	767	104	56
3	35	81	81	71	85	92	661	2140	740	725	94	57
4	28	88	70	80	85	92	623	1970	665	590	92	57
5	26	84	60	116	85	92	774	1810	757	590	92	865
6	25	83	45	108	85	94	301	2000	1720	590	92	976
7	25	130	56	69	85	100	676	2920	2200	590	71	988
8	25	114	100	68	85	138	713	3290	2190	590	130	982
9	24	80	300	92	85	321	896	2640	2400	548	86	976
10	24	66	331	100	80	311	1950	2020	2400	377	98	976
11	29	77	343	86	75	295	2090	1350	2050	279	94	956
12	45	89	924	96	75	371	1410	1100	1230	188	79	741
13	25	84	340	80	75	424	422	1080	863	182	90	835
14	24	97	337	69	75	430	533	1050	1340	212	104	841
15	24	86	334	68	75	455	638	598	2330	212	129	847
16	24	78	311	128	75	824	1190	603	2490	219	101	847
17	24	65	311	138	80	770	2460	637	2460	216	78	789
18	26	57	334	89	80	514	2340	781	1930	221	74	155
19	34	51	417	71	80	453	2930	1460	1440	320	92	76
20	31	50	314	76	80	392	2480	2410	1080	313	101	41
21	40	61	118	100	97	453	1960	2570	1060	182	81	40
22	35	69	126	82	130	389	1950	2510	1020	186	90	58
23	34	69	94	73	138	443	1920	2660	936	173	88	40
24	43	73	60	58	109	505	1880	2890	943	169	72	37
25	84	132	60	50	101	558	2080	2940	969	111	67	36
26	99	90	55	55	98	641	2040	2910	1110	94	66	38
27	85	81	70	90	86	803	2070	3120	1100	98	67	39
28	69	121	157	95	79	1050	1900	3040	1050	98	65	91
29	64	131	81	100	---	1240	1910	2950	835	98	58	988
30	64	104	37	80	---	1040	2040	2940	773	98	50	962
31	54	---	63	70	---	876	---	2720	---	95	38	---
TOTAL	1242	2492	6094	2574	2428	14351	44439	66019	43721	9893	2668	14434
MEAN	40.1	83.1	197	83.0	86.7	463	1481	2130	1457	319	86.1	481
MAX	99	132	924	138	138	1240	2930	3290	2490	767	130	988
MIN	24	49	37	50	70	90	301	598	665	94	38	36
AC-FT	2460	4940	12090	5110	4820	28470	88140	130900	86720	19620	5290	28630

CAL YR 1978 TOTAL 148365 MEAN 406 MAX 3280 MIN 23 AC-FT 294300
WTR YR 1979 TOTAL 210355 MEAN 576 MAX 3290 MIN 24 AC-FT 417200

08286500 RIO CHAMA ABOVE ABIQUIU RESERVOIR, NM -- Continued

WATER-QUALITY RECORDS

PERIOD RECORD.--Water years 1963 to current year.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
OCT						
03...	1330	35	565	17.0	97	9.2
DEC						
05...	1225	72	488	1.0	80	16
29...	1100	69	418	.0	32	6.0
JAN						
25...	1550	58	535	1.0	21	3.3
FEB						
21...	1600	112	505	.5	58	18
MAR						
20...	1135	383	584	5.0	1170	1210
APR						
16...	1615	980	380	13.0	372	984
MAY						
14...	1110	1070	212	10.0	166	480
JUN						
11...	1115	2380	160	12.0	646	4150
JUL						
10...	1500	392	3250	17.0	30	32
AUG						
06...	1345	95	250	24.0	38	9.7
21...	1330	73	262	18.0	140	28
SEP						
05...	1440	938	168	13.0	633	1600

08286900 ABIQUIU RESERVOIR NEAR ABIQUIU, NM

LOCATION.--Lat 36°14'24", long 106°25'44", Rio Arriba County, Hydrologic Unit 13020102, in Piedra Lumbre Grant, in operations building at Abiquiu Dam on Rio Chama, 6.6 mi (10.6 km) northwest of Abiquiu, and at mile 32.1 (51.6 km).

DRAINAGE AREA --2,146 mi² (5,558 km²), of which about 100 mi² (260 km²) is probably noncontributing.

PERIOD OF RECORD.--February 1963 to September 1965 (monthend contents only), October 1965 to current year. October 1969 to December 1975, contents at 0800 hours.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam, completed Feb. 5, 1963. Capacity, 1,215,000 acre-ft (1.50 km³) between elevations 6,060 ft (1,847 m), invert of outlet tunnel, and 6,350 ft (1,935 m), crest of spillway, based on capacity table effective Jan. 1, 1976. No dead storage. Reservoir is used for flood control and, since March 1976, for recreation. A desilting pool of about 2,000 acre-ft (2.5 hm³) was maintained from May 1968 to 1974, when it was increased to 4,000 acre-ft (4.9 hm³) and continued until December 1975.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 205,300 acre-ft (253 hm³) June 22, 1973, elevation, 6,219.93 ft (1,895.835 m); no storage at times prior to May 1968 and Jan. 11 to Mar. 25, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 147,000 acre-ft (181 hm³) June 28, elevation, 6,205.27 ft (1,891.366 m); minimum, 15,990 acre-ft (19.7 hm³) Apr. 14, elevation 6,140.62 ft (1,871.661 m).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1976)

6,140	15,520	6,180	72,610
6,150	24,140	6,200	128,700
6,160	35,590	6,220	203,300

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17120	16920	16890	16910	16970	16970	16940	53020	116000	145600	118600	116600
2	17110	16980	16920	16910	16930	16960	16750	55160	117200	145400	118600	116600
3	17100	17000	16940	16940	16910	16890	16830	56390	116800	144700	118600	116600
4	17090	16940	16920	16990	16930	16920	16780	57160	116200	143800	118600	116600
5	17100	16950	16980	17040	16940	16920	17070	57910	116000	143000	118500	117200
6	17110	16950	16960	17040	16960	16940	16760	58750	117300	142500	118500	116800
7	17110	16980	16870	16980	17000	16980	16960	62150	119900	141500	118400	116400
8	17100	16940	16870	16960	17030	17050	16900	66720	122700	140800	118300	116200
9	17080	16960	16880	16990	16980	17310	16900	71600	126900	139700	118300	116400
10	17040	16980	17020	17040	16960	17160	18390	70340	131600	138200	118300	116400
11	17020	17000	17120	16960	16970	17020	19720	70270	134400	136600	118300	116400
12	17040	17010	17860	17000	17040	17360	19530	69950	135100	134800	118200	116200
13	17030	16940	17800	17040	17090	17600	16820	68010	135100	134500	118100	116000
14	17020	16950	17370	16990	17140	18040	16530	67030	135700	130900	118200	116000
15	17010	16960	17120	16940	17220	18470	17060	65380	138400	128900	118200	116000
16	17000	16960	17030	16980	17040	18850	17240	63760	141300	127400	117500	116300
17	17000	16960	17060	17020	16990	18020	20020	61930	144100	126100	117400	116400
18	16980	16950	17060	17000	17020	16990	22550	60450	146000	125500	117400	115700
19	16980	16940	17120	16960	17030	17710	27220	60660	146500	124800	117300	115400
20	16990	16950	17110	16990	16940	18100	30460	63220	146700	124200	117300	115400
21	17060	16990	16950	17010	16960	18290	32370	66940	146700	123100	117300	115400
22	17000	17020	16920	17010	16990	18540	34400	70950	146900	122100	117200	115400
23	16960	17040	17070	16980	16980	18770	36620	74290	146700	121100	117200	115400
24	16940	16980	17080	16940	16920	18740	38600	78410	146600	120000	117200	115500
25	16980	17000	17070	16960	16920	17940	41040	83480	146500	119300	117100	115500
26	16960	16940	17080	16980	17040	17380	43330	88760	146700	119000	116900	115400
27	16990	16920	16960	16990	16940	16940	45550	94980	146900	119000	116800	115400
28	16960	16980	17030	17000	16920	16960	47400	100800	146900	118900	116800	115400
29	16950	17000	17020	17040	---	16870	49170	105600	146600	118900	116700	116100
30	16970	16920	16910	16950	---	16610	50670	109800	146200	118700	116700	117300
31	16970	---	16920	16950	---	16870	---	113300	---	118600	116700	---
MAX	17120	17040	17860	17040	17220	18850	50670	113300	146900	145600	118600	117300
MIN	16940	16920	16870	16910	16910	16610	16530	53020	116000	118600	116700	115400
(†)	6141.89	6141.82	6141.82	6141.86	6141.83	6141.76	6169.55	6195.20	6205.06	6196.90	6196.30	6196.49
(‡)	-170	-50	0	+30	-30	-50	+33800	+62630	+32900	-27600	-1900	+600

CAL YR 1978 MAX 57180 MIN 16870 ‡ -2170
WTR YR 1979 MAX 146900 MIN 16530 ‡ +100160

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08287000 RIO CHAMA BELOW ABIQUIU DAM, NM

LOCATION.--Lat 36°14'12", long 106°24'59", in SE¼SE¼ sec.8, T.23 N., R.5 E., Rio Arriba County, Hydrologic Unit 13020102, on right bank 0.8 mi (1.3 km) downstream from Abiquiu Dam, 5.9 mi (9.5 km) northwest of Abiquiu, and at mile 31.3 (50.4 km).

DRAINAGE AREA.--2,147 mi² (5,561 km²), of which about 100 mi² (260 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1961 to current year (monthly discharge only, October 1961).

GAGE.--Water-stage recorder. Concrete control since Jan. 25, 1966. Altitude of gage is 6,040 ft (1,841 m), from topographic map. Prior to Jan. 25, 1966, at datum 1.60 ft (0.488 m) lower.

REMARKS.--Water-discharge records good. Flow controlled by El Vado Reservoir (station 08285000) 46.4 mi (74.7 km) upstream and Abiquiu Reservoir (station 08286900) 0.8 mi (1.3 km) upstream. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 54.5 mi (87.7 km) upstream. Diversions for irrigation of about 17,600 acres (71 km²) above station. Corps of Engineers gage-height telemeter at station.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 384 ft³/s (10.87 m³/s), 278,200 acre-ft/yr (343 hm³/yr), prior to release of transmountain water; 9 years (water years 1971-79), 405 ft³/s (11.47 m³/s), 293,400 acre-ft/yr (362 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,990 ft³/s (84.7 m³/s) July 1, 1965, gage height, 6.69 ft (2.039 m), datum then in use; maximum gage height, 7.29 ft (2.222 m) Jan. 14, 1967 (backwater from ice); minimum discharge, about 0.5 ft³/s (0.01 m³/s) Mar. 17, 1966, Jan. 28, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,900 ft³/s (53.8 m³/s) May 17, 18, gage height, 4.87 ft (1.484 m); minimum, 2.3 ft³/s (0.065 m³/s) Feb. 8, Aug. 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	44	64	105	55	58	91	861	1710	1180	1020	79	33
2	38	47	79	40	94	124	874	1760	1070	1020	65	33
3	38	120	79	30	85	135	679	1830	1210	1020	84	33
4	32	139	71	46	75	95	629	1840	1240	1020	93	33
5	22	98	57	67	74	100	733	1840	1080	1020	94	658
6	18	94	75	106	74	101	453	1780	1070	1020	94	1210
7	18	120	66	82	74	108	632	1670	1070	1020	94	1190
8	22	143	52	66	71	116	847	1750	1080	1020	93	987
9	35	95	133	59	111	192	928	1810	478	1020	93	876
10	37	63	228	73	94	366	1360	1810	298	1130	92	964
11	37	76	273	103	82	353	1600	1820	765	1210	92	1050
12	37	111	415	83	86	229	1670	1820	1000	1210	96	952
13	32	133	447	68	114	292	1660	1820	1030	1210	99	837
14	26	102	515	82	131	310	805	1820	1020	1200	99	729
15	26	102	464	94	174	266	537	1720	1020	1210	336	675
16	26	95	355	81	195	627	1190	1730	1020	1140	365	691
17	27	77	308	127	148	1250	1670	1890	1020	916	94	798
18	34	63	330	170	111	951	1550	1810	1020	750	79	580
19	35	64	370	133	132	190	1280	1620	1020	700	79	106
20	28	54	387	82	146	331	1300	1530	1020	700	71	19
21	35	47	211	89	129	287	1310	1430	1020	700	62	19
22	59	59	73	102	133	294	1340	1040	1020	700	79	19
23	56	72	57	87	162	341	1350	1320	1020	696	89	19
24	54	115	55	59	162	563	1360	1250	1020	693	89	19
25	66	149	53	47	113	943	1370	1040	1020	466	89	20
26	110	137	50	59	73	939	1380	741	1020	155	89	33
27	94	107	94	72	145	971	1390	543	1020	91	72	40
28	94	84	107	86	104	1060	1400	668	1020	91	59	40
29	82	132	124	110	---	1320	1410	952	1020	92	55	642
30	63	155	108	123	---	1210	1600	1180	1020	90	42	147
31	68	---	67	62	---	811	---	1340	---	81	33	---
TOTAL	1393	2917	5808	2543	3150	14966	35160	46884	29911	24411	3049	13452
MEAN	44.9	97.2	187	82.0	113	483	1172	1512	997	787	98.4	448
MAX	110	155	515	170	195	1320	1670	1890	1240	1210	365	1210
MIN	18	47	50	30	58	91	453	543	298	81	33	19
AC-FT	2760	5790	11520	5040	6250	29690	69760	92990	59330	48420	6050	26680

CAL YR 1978 TOTAL 154514 MEAN 423 MAX 1650 MIN 18 AC-FT 306500
WTR YR 1979 TOTAL 183652 MEAN 503 MAX 1890 MIN 18 AC-FT 364300

08287000 RIO CHAMA BELOW ABIQUIU DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)
OCT						
03...	1510	38	381	17.0	123	13
DEC						
05...	1425	55	406	7.0	25	3.7
29...	1430	227	444	3.0	25	15
JAN						
05...	1200	77	523	3.0	17	3.5
25...	1250	74	483	3.0	32	6.4
FEB						
21...	1305	139	470	1.0	19	7.1
MAR						
20...	1400	830	519	5.0	45	101
APR						
17...	1130	1670	383	19.0	314	1420
MAY						
19...	1425	1740	255	10.0	71	334
JUN						
11...	1520	992	190	13.0	133	356
JUL						
11...	1200	1240	173	18.0	39	131
AUG						
07...	1140	92	200	14.5	42	10
21...	1045	63	228	14.5	83	14
SEP						
06...	1100	1240	199	13.0	35	117

08289000 RIO OJO CALIENTE AT LA MADERA, NM

LOCATION.--Lat 36°20'59", long 106°02'37", in NW¼NE¼ sec. 1, T.24 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020102, on left bank 400 ft (120 m) upstream from bridge on State Highway 96, 2.4 mi (3.9 km) south of La Madera, 2.6 mi (4.2 km) downstream from confluence of Rio Vallecitos and Rio Tusas, 3.1 mi (5.0 km) north of Ojo Caliente, and at mile 19.9 (32.0 km).

DRAINAGE AREA.--419 mi² (1,085 km²).

PERIOD OF RECORD.--April 1932 to current year.

REVISED RECORDS.--WSP 1712: 1959.

GAGE.--Water-stage recorder. Datum of gage is 6,358.84 ft (1,938.174 m) National geodetic Vertical Datum of 1929. Prior to Apr. 23, 1934, at site about 2.6 mi (4.2 km) upstream at different datum. Apr. 23, 1934 to Apr. 21, 1936, at datum 12.58 ft (3.834 m) lower and Apr. 22, 1936 to Oct. 26, 1956, at datum 13.84 ft (4.218 m) lower, both at site 1,400 ft (430 m) downstream.

REMARKS.--Records fair. Diversions above station for irrigation of about 3,500 acres (14 km²), 1962 determination. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--47 years, 66.5 ft³/s (1.883 m³/s), 48,180 acre-ft/yr (59.4 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,140 ft³/s (88.9 m³/s) Apr. 21, 1958, gage height, 6.42 ft (1.957 m), from rating curve extended above 1,300 ft³/s (37 m³/s); maximum gage height, 7.25 ft (2.210 m), from floodmarks, June 19, 1966; minimum discharge 0.2 ft³/s (0.006 m³/s) Aug. 17, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Apr. 21, 1958, may have been exceeded by a flood in May 1920, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 19	0130	1040	29.5	5.95	1.814	May 22	0245	*1510	42.8	6.37	1.942
May 7	0215	1050	29.7	5.92	1.804	June 8	2330	918	26.0	5.72	1.743

Minimum discharge, 3.9 ft³/s (0.11 m³/s) Sept. 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.8	10	18	19	25	41	124	764	471	17	7.2	6.2
2	4.7	11	20	18	25	45	102	795	528	17	7.1	6.6
3	4.5	17	19	23	25	42	93	643	457	15	6.7	6.7
4	4.5	18	12	23	26	37	76	526	401	16	6.4	6.7
5	4.5	15	14	23	26	35	80	639	394	15	7.0	6.4
6	5.1	13	18	24	26	41	105	821	370	35	7.2	6.2
7	5.5	12	13	23	26	61	187	911	338	21	6.5	7.3
8	5.6	12	13	22	25	108	266	810	457	19	6.9	8.1
9	5.5	12	17	24	24	88	331	615	598	17	7.5	7.2
10	5.7	12	18	23	24	64	290	483	336	16	7.4	7.1
11	5.7	15	18	24	24	65	205	392	269	14	8.8	7.1
12	5.1	17	19	23	25	86	162	355	241	9.5	8.7	6.8
13	5.1	22	20	23	27	100	145	345	213	8.0	7.9	6.5
14	5.5	19	20	21	30	104	205	452	183	7.7	8.8	6.8
15	6.0	22	20	24	45	108	331	624	160	6.5	23	6.6
16	6.1	22	20	24	54	124	441	710	141	8.2	31	5.4
17	5.7	18	20	24	51	131	604	863	117	8.2	25	5.0
18	5.7	16	21	26	45	111	717	902	96	8.1	23	5.3
19	5.5	15	29	26	45	102	781	1040	80	9.3	21	5.3
20	5.9	15	29	22	50	94	649	973	74	11	19	5.0
21	6.7	15	26	21	44	105	601	1100	62	12	17	5.7
22	6.9	16	27	23	41	96	660	1100	51	12	15	5.8
23	6.4	16	29	23	36	91	772	995	41	11	13	5.5
24	7.1	17	27	22	37	91	790	949	34	8.6	9.0	5.7
25	7.7	28	27	24	35	100	782	831	35	8.0	7.8	5.6
26	8.1	28	28	24	38	117	839	918	30	8.1	8.8	5.6
27	9.7	22	25	24	42	138	832	860	25	7.8	8.1	6.0
28	11	18	23	21	39	153	907	882	23	7.9	6.9	6.4
29	11	15	23	25	---	162	868	825	23	7.8	6.7	6.0
30	11	17	24	25	---	128	767	709	22	7.8	6.5	5.3
31	11	---	24	26	---	138	---	536	---	7.2	6.3	---
TOTAL	203.3	505	661	717	960	2906	13712	23368	6270	376.7	351.2	185.9
MEAN	6.56	16.8	21.3	23.1	34.3	93.7	457	754	209	12.2	11.3	6.20
MAX	11	28	29	26	54	162	907	1100	598	35	31	8.1
MIN	4.5	10	12	18	24	35	76	345	22	6.5	6.3	5.0
AC-FT	403	1000	1310	1420	1900	5760	27200	46350	12440	747	697	369

CAL YR 1978 TOTAL 20144.9 MEAN 55.2 MAX 652 MIN 3.8 AC-FT 39960
WTR YR 1979 TOTAL 50216.1 MEAN 138 MAX 1100 MIN 4.5 AC-FT 99600

08290000 RIO CHAMA NEAR CHAMITA, NM

LOCATION.--Lat 36°04'26", long 106°06'40", in NE¼NE¼ sec.8, T.21 N., R.8 E., Rio Arriba County, Hydrologic Unit 13020102, in San Juan Pueblo Grant, at downstream end of pier nearest left bank of bridge on U.S. Highway 285, 0.5 mi (0.8 km) west of Chamita, 2.5 mi (4.0 km) northwest of San Juan Pueblo, and at mile 2.8 (4.5 km).

DRAINAGE AREA.--3,144 mi² (8,143 km²), of which about 100 mi² (260 km²) is probably noncontributing.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1912 to current year. Monthly discharge only for some periods, published WSP 1312. Published as Chama River near Chamita prior to 1928, and Chama River at Chamita 1929-30.

REVISED RECORDS.--WSP 1512: 1913-15, 1934, 1936. WSP 1632: 1929(M). WSP 1732: 1931(M). WSP 1923: Drainage area.

GAGE.--Water-stage recorder. Concrete control since Jan. 1, 1964. Datum of gage is 5,653.61 ft (1,723.220 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 4, 1933, at railroad bridge 2.3 mi (3.7 km) downstream at different datums. Oct. 4, 1933 to Mar. 1, 1942, at site 50 ft (15 m) downstream at datum 0.22 ft (0.067 m) higher. Mar. 2, 1942 to Dec. 31, 1963, at site 200 ft (60 m) downstream, present datum.

REMARKS.--Water-discharge records good. Diversions above station for irrigation of about 27,600 acres (112 km²). Chamita ditch (station 08289500), on left [illegible] and Hernandez ditch (station 08289800), on right bank, bypass gage for irrigation of several hundred acres below station; see tabulation below for monthly diversion during irrigation season. Flow regulated by El Vado Reservoir (station 08285000) and Abiquiu Reservoir (station 08286900), 74.9 mi (120.5 km) and 29.3 mi (47.1 km) upstream respectively. Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510) 83.0 mi (133.5 km) upstream. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--58 years (water years 1913-70), 541 ft³/s (15.32 m³/s), 392,000 acre-ft/yr (483 hm³/yr), prior to release of transmountain water; 9 years (water years 1971-79), 451 ft³/s (12.77 m³/s), 326,700 acre-ft/yr (403 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,000 ft³/s (425 m³/s) May 22, 1920, from rating curve extended above 2,300 ft³/s (65 m³/s); maximum gage height, 10.45 ft (3.185 m) Aug. 22, 1961; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The floods of Sept. 29, 1904, and Oct. 4 or 5, 1911, probably exceeded 15,000 ft³/s (420 m³/s). Another major flood occurred in 1884, from newspaper accounts.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,410 ft³/s (96.6 m³/s) May 22, gage height, 6.60 ft (2.012 m); minimum, 18 ft³/s (0.51 m³/s) Oct. 7-10, Sept. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	39	70	190	80	100	124	694	2550	1860	1010	40	29
2	39	73	135	50	110	158	922	2630	1820	1030	30	23
3	29	305	105	50	110	189	724	2560	1780	1040	31	22
4	23	230	107	60	100	165	568	2390	1860	1020	28	25
5	22	135	110	80	100	133	634	2490	1620	1000	38	154
6	20	117	96	119	100	160	601	2710	1570	1000	42	1270
7	19	113	85	178	100	155	512	2790	1520	1030	33	1070
8	18	158	70	140	100	212	958	2700	1580	995	31	889
9	18	138	60	110	110	295	1160	2510	1810	978	35	782
10	20	110	250	100	153	405	1530	2320	1200	1010	53	796
11	27	113	286	154	123	531	1680	2160	1150	1120	59	964
12	24	124	574	142	124	368	1730	2100	1280	1110	34	897
13	26	158	510	125	129	313	1700	2040	1240	1110	49	786
14	25	172	520	100	174	366	1350	2110	1200	1110	151	710
15	26	158	507	137	225	379	624	2280	1180	1100	433	629
16	31	145	377	137	263	417	1300	2230	1150	1090	605	626
17	31	142	311	120	254	1110	2260	2650	1120	938	206	677
18	25	124	334	227	174	1250	2510	2680	1090	772	112	698
19	26	117	387	221	188	336	2310	2710	1040	698	96	235
20	28	124	405	138	210	373	2160	2690	1030	675	92	69
21	30	110	328	124	209	370	2050	2830	1020	669	91	40
22	29	124	151	135	180	317	2170	2830	1010	668	85	29
23	42	135	119	130	199	333	2280	2470	992	649	81	22
24	42	142	103	90	205	385	2340	2670	1030	635	73	20
25	54	195	103	90	198	817	2340	2230	1050	598	63	19
26	57	206	106	90	141	953	2440	2160	1020	202	89	19
27	92	186	96	90	138	1010	2390	1810	1010	131	96	24
28	79	172	149	100	212	1090	2510	1760	994	75	68	34
29	84	142	133	120	---	1330	2550	1940	996	64	43	157
30	68	201	175	130	---	1340	2470	2040	1010	53	40	467
31	63	---	131	100	---	996	---	2040	---	46	34	---
TOTAL	1156	4439	7013	3667	4429	16380	49467	74080	38232	23626	2961	12182
MEAN	37.3	148	226	118	158	528	1649	2390	1274	762	95.5	406
MAX	92	305	574	227	263	1340	2550	2830	1860	1120	605	1270
MIN	18	70	60	50	100	124	512	1760	992	46	28	19
AC-FT	2290	8800	13910	7270	8780	32490	98120	146900	75830	46860	5870	24160
(†)	285	-	-	-	-	-	141	563	172	848	636	507
(‡)	582	-	-	-	-	-	408	787	587	743	139	431

CAL YR 1978 TOTAL 170833 MEAN 468 MAX 2390 MIN 18 AC-FT 338800

WTR YR 1979 TOTAL 237632 MEAN 651 MAX 2830 MIN 18 AC-FT 471300

† Diversion, in acre-feet, by Chamita ditch.

‡ Diversion, in acre-feet, by Hernandez ditch.

08290000 RIO CHAMA NEAR CHAMITA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948 to current year.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)
OCT												
04...	1330	24	563	18.0	26	1.7	--	--	--	--	--	--
NOV												
03...	1130	442	345	10.0	14500	17300	49	58	75	84	97	100
DEC												
01...	1300	185	484	8.0	348	174	--	--	--	--	--	--
29...	1100	133	497	2.5	152	55	--	--	--	--	--	--
FEB												
23...	1555	196	486	2.0	26	14	--	--	--	--	--	--
MAR												
19...	1105	276	440	5.0	356	265	--	--	--	--	--	--
20...	1550	222	435	9.0	125	75	--	--	--	--	--	--
APR												
18...	1400	2560	374	16.0	331	2290	--	--	--	--	--	--
26...	1515	2390	272	16.0	318	2050	--	--	--	--	--	--
MAY												
16...	1415	2260	219	13.0	153	934	--	--	--	--	--	--
JUN												
12...	1650	1250	189	17.0	189	638	--	--	--	--	--	--
JUL												
12...	1400	1160	183	18.0	66	207	--	--	--	--	--	--
AUG												
08...	1545	32	363	27.0	22	1.9	--	--	--	--	--	--
SEP												
06...	1430	1340	269	18.0	2050	7420	--	--	--	--	--	--

DIVERSIONS FROM RIO CHAMA

During the irrigation season records of discharge are collected on all 17 ditches and 2 pumps which divert from Rio Chama below El Vado Dam. All sites are located in Hydrologic Unit 13020102. All measuring devices consist of totalizing type flowmeters. All ditches are also equipped with Parshall flumes. In most cases meters on ditches are located below the most downstream wasteway and above any irrigated land. Flows tabulated represent water that is delivered to each ditch or portion thereof and may include waste water from another ditch. No attempt is made to credit for water returned to Rio Chama or delivered to another ditch.

08286300 MONASTERY PUMP NEAR ALIRE, NM.--Lat 36°22'45", long 106°40'55", in SE¼SW¼, sec.24, T.25 N., R.2 E., Rio Arriba County, in Santa Fe National Forest, totalizing flowmeter on discharge pipe of pump on left bank of Rio Chama, at Christ of the Desert Monastery, 8.8 mi (14.2 km) southwest of Alire, and 24 mi (39 km) northwest of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287020 ABEYTA TRUJILLO DITCH NEAR ABIQUIU, NM.—Lat 36°14'03", long 106°23'22", Rio Arriba County, in Carson National Forest, totalizing flowmeter and Parshall flume on left bank 0.9 mi (1.4 km) downstream from heading located on left bank of Rio Chama, and 4.5 mi (7.2 km) northeast of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287040 WINFIELD MORTON PUMP NEAR ABIQUIU, NM.—Lat 36°12'40", long 106°20'48", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter on discharge pipe of pump on left bank of Jose Pablo Gonzales ditch 700 ft (210 m) downstream from ditch heading located on left bank of Rio Chama, and 1.4 mi (2.3 km) west of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287060 JOSE PABLO GONZALES DITCH NEAR ABIQUIU, NM.—Lat 36°12'25", long 106°20'35", Rio Arriba County, in Town of Abiquiu Grant, totalizing flowmeter and Parshall flume on left bank, 0.5 mi (0.8 km) downstream from Winfield Morton pump, 0.6 mi (1.0 km) downstream from heading located on left bank of Rio Chama, and 1.2 mi (1.9 km) west of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287150 GONZALES DITCH AT ABIQUIU, NM.--Lat 36°12'46", long 106°19'16", Rio Arriba County, in Town of Abiquiu Grant, totalizing flowmeter and Parshall flume on right bank, 0.2 mi (0.3 km) downstream from heading located on right bank of Rio Chama, and 0.4 mi (0.6 km) northwest of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287200 LA PUENTE DITCH NEAR ABIQUIU, NM.--Lat 36°12'52", long 106°16'27", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank, 100 ft (30 m) downstream from culvert on U.S. Highway 84, 0.4 mi (0.6 km) downstream from heading located on right bank of Rio Chama, and 2.5 mi (4.0 km) east of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287250 QUINTANA DITCH NEAR ABIQUIU, NM.--Lat 36°12'55", long 106°16'26", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank, 100 ft (30 m) upstream from culvert on U.S. Highway 84, 0.2 mi (0.3 km) downstream from heading located on right bank of Rio Chama, and 2.6 mi (4.2 km) east of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287270 VALENTINE MARTINEZ DITCH NEAR ABIQUIU, NM.--Lat 36°12'55", long 106°16'12", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank on north side of U.S. Highway 84, 0.2 mi (0.3 km) downstream from heading located on left bank of Quintana ditch (station 08287250), and 2.8 mi (4.5 km) east of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287300 MARIANO DITCH NEAR ABIQUIU, NM.--Lat 36°13'05", long 106°16'09", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank 0.5 mi (0.8 km) downstream from heading located on left bank of Rio Chama, and 2.9 mi (4.7 km) east of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287400 FERRAN DITCH NEAR ABIQUIU, NM.--Lat 36°12'57", long 106°14'34", Rio Arriba County, in Carson National Forest, totalizing flowmeter and Parshall flume on left bank just downstream from siphon, 40 ft (12 m) upstream from forest boundary, 0.2 mi (0.3 km) downstream from culvert on State Highway 96, 0.4 mi (0.6 km) downstream from tail of Mariano ditch (station 08287300), 0.9 mi (1.4 km) downstream from heading located on left bank of Rio Chama, and 4.4 mi (7.1 km) east of Abiquiu. PERIOD OF RECORD, April 1972 to current year.

08287600 TIERRA AZUL DITCH NEAR MEDANALES, NM.--Lat 36°12'06", long 106°14'11", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank 1.1 mi (1.8 km) downstream from heading located on right bank of Rio Chama, and 3.5 mi (5.6 km) northwest of Medanales. PERIOD OF RECORD, April 1972 to current year.

08288050 JOSE V. MARTINEZ DITCH NEAR MEDANALES, NM.--Lat 36°11'44", long 106°13'39", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on left bank 0.1 mi (0.2 km) downstream from heading located on left bank of Rio Chama, and 2.9 mi (4.7 km) northwest of Medanales. PERIOD OF RECORD, April 1972 to current year.

08288100 MANZANARES AND MONTOYA DITCH NEAR MEDANALES, NM.--Lat 36°11'13", long 106°12'35", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank, 0.2 mi (0.3 km) downstream from heading located on right bank of Rio Chama, and 1.7 mi (2.7 km) northeast of Medanales. PERIOD OF RECORD, April 1972 to current year.

08288150 RIO DE CHAMA DITCH NEAR MEDANALES, NM.—Lat 36°11'13", long 106°12'02", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter, and Parshall flume on left bank, 0.5 mi (0.8 km) downstream from tail of Jose V. Martinez ditch (station 08288050), 0.7 mi (1.1 km) downstream from heading located on left bank of Rio Chama, and 1.3 mi (2.1 km) northwest of Medanales. PERIOD OF RECORD, April 1972 to current year.

DIVERSIONS FROM RIO CHAMA --Continued

08288200 MARTINEZ AND DURANCES DITCH (UPPER) NEAR MEDANALES, NM.--Lat 36°10'55", long 106°11'59", Rio Ariba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank, 300 ft (91 m) downstream from tail of Manzanares and Montoya ditch (station 08288100), 0.7 mi (1.1 km) downstream from heading located on right bank of Rio Chans, and 1.1 mi (1.8 km) northwest of Medanales. PERIOD OF RECORD, April 1972 to current year.

08288250 MARTINEZ AND DURANES DITCH (LOWER) NEAR MEDANALES, NM.--Lat 36°09'26", long 106°10'24", Rio Arriba County, in Juan Jose Lobato Grant, totalizing flowmeter and Parshall flume on right bank, 0.9 mi (1.4 km) downstream from culvert on State Highway 233, 1.4 mi (2.3 km) south of Medanales, 2.5 mi (4.0 km) downstream from "upper" gage (station 08288200), and 3.2 mi (5.1 km) downstream from heading located on right bank of Rio Chama. PERIOD OF RECORD, April 1972 to current year.

08288300 CHILE DITCH NEAR HERNANDEZ, NM.--Lat 36°07'00", long 106°09'11", in SW¼SW¼ sec. 24, T.22 N., R.7 E., Rio Arriba County, totalizing flowmeter and Parshall flume on left bank, 0.4 mi (0.6 km) downstream from heading located on right bank of Rio Chams, 0.5 mi (0.8 km) upstream from siphon under Rio del Oso, and 4.1 mi (6.6 km) northwest of Hernandez. PERIOD OF RECORD, April 1972 to current year.

08289500 CHAMITA DITCH NEAR CHAMITA, NM.--Lat 36°04'57", long 106°06'54", in SW¼NE¼ sec. 5, T.21 N., R. 8 E., in Rio Ariba County, in San Juan Pueblo Grant, totalizing flowmeter, and Parshall flume on left bank, 30 ft (9 m) upstream from flume over Arroyo de la Penita, 0.7 mi (1.1 km) downstream from heading located on left bank of Rio Chama, and 1.0 mi (1.6 km) northwest of Chamita. PERIOD OF RECORD, March 1936 to April 1941, February 1963 to current year (records furnished by Bureau of Reclamation August 1966 to December 1972).

08289800 HERNANDEZ DITCH AT HERNANDEZ, NM.--Lat 36°04'52", long 106°07'16", Rio Arriba County, in Bartolome Sanchez Grant totalizing flowmeter, and Parshall flume on right bank, 0.7 mi (1.1 km) downstream from heading located on right bank of Rio Chama, 1.1 mi (1.8 km) north of Hernandez, and 1.3 mi (2.1 km) northwest of Chamita. PERIOD OF RECORD, March 1963 to current year (records furnished by Bureau of Reclamation July 1965 to December 1971).

08290100 SALAZAR DITCH AT HERNANDEZ, NM.--Lat 36°03'44", long 106°06'31", in SE¼SE¼ sec. 8, T. 21 N., R. 8 E., Rio Arriba County, in San Juan Pueblo Grant, totalizing flowmeter and Parshall flume on right bank, 0.1 mi (0.2 km) downstream from heading located on right bank of Rio Chama, and 0.6 mi (1.0 km) east of Hernandez. PERIOD OF RECORD, April 1972 to current year.

DIVERSIONS FROM RIO CHAMA, IN ACRE-FEET, IRRIGATION SEASON 1979

	Diversion	APR	MAY	JUN	JUL	AUG	SEP	OCT
08286300	Monastery pump	.1	b	b	.6	.3	.3	.1
08287020	Abeyta Trujillo ditch	503	320	399	358	72	87	27
08287040	Winfield Morton pump	50	87	63	55	15	28	18
08287060	Jose Pablo Gonzales ditch	523	544	a380	485	337	391	a360
08287150	Gonzales ditch	12	34	20	32	12	2	23
08287200	La Puente ditch	132	217	243	274	140	6	58
08287250	Quintana ditch	14	37	9	54	109	75	49
08287270	Valentine Martinez ditch	4	14	10	13	2	10	17
08287300	Mariano ditch	10	66	185	277	111	185	243
08287400	Ferran ditch	202	145	a182	111	20	19	.3
08287600	Tierra Azul ditch	a360	480	384	561	237	44	.3
08288050	Jose V. Martinez ditch	37	67	118	155	33	3	3
08288100	Manzanares and Montoya ditch	2	3	19	11	5	1	0
08288150	Rio de Chama ditch	189	431	448	607	170	395	262
08288200	Martinez and Duranes ditch (upper)	346	540	426	572	421	562	283
08288250	Martinez and Duranes ditch (lower)	a300	a495	a540	418	508	596	1
08288300	Chili ditch	55	90	86	92	80	58	28
08289500	Chamita ditch	141	563	172	848	636	507	570
08289800	Hernandez ditch	408	787	587	743	139	431	41
08290100	Salazar ditch	332	406	473	184	343	396	321

a Estimated.
b No record.

08291000 SANTA CRUZ RIVER AT CUNDIYO, NM

LOCATION.--Lat 35°57'53", long 105°54'14", in SE¼NW¼ sec.17, T.20 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, on left bank 135 ft (41 m) downstream from bridge on State Highway 4, 200 ft (61 m) downstream from confluence of Rio Medio and Rio Frijoles, 0.6 mi (1.0 km) northwest of Cundiyo, 1.8 mi (2.9 km) upstream from Santa Cruz Dam, and at mile 11.9 (19.1 km).

DRAINAGE AREA.--86 mi² (220 km²), approximately.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1953, published as Rio Santa Cruz at Cundiyo.

REVISED RECORDS.--WSP 1392: 1931(M), 1932-33, 1934-39(M), 1942, 1943(M).

GAGE.--Water-stage recorder. Concrete control since Jan. 3, 1954. Altitude of gage is 6,460 ft (1,969 m), from topographic map. Sept. 1, 1930 to Aug. 12, 1932, water-stage recorder at site about 1 mi (2 km) downstream at different datum. Aug. 13, 1932 to Oct. 29, 1934, water-stage recorder at site 35 ft (11 m) upstream at datum 0.42 ft (0.128 m) higher. Oct. 30, 1934 to Jan. 2, 1954, water-stage recorder at present site at datum 0.64 ft (0.195 m) lower.

REMARKS.--Remarks good except those for winter period and those for July and August, which are fair. Diversions for irrigation of about 1,000 acres (4.05 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--49 years, 28.8 ft³/s (0.816 m³/s), 20,870 acre-ft/yr (25.7 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,420 ft³/s (68.5 m³/s) Sept. 24, 1931, gage height, 7.8 ft (2.38 m), site and datum then in use, from rating curve extended above 170 ft³/s (4.81 m³/s); minimum, 0.19 ft³/s (0.005 m³/s) Mar. 13, 1954, result of freezeup.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 25	2330	156	4.42	2.72	0.829	June 8	2330	a*897	25.4	4.03	1.228
May 9	1230	138	3.91	2.69	.820						

a From rating curve extended above 400 ft³/s (11 m³/s).

Minimum discharge, 3.4 ft³/s (0.096 m³/s) Feb. 14, result of freezeup.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.8	11	11	8.0	8.5	16	29	99	321	140	28	18
2	8.4	11	11	7.0	9.0	16	26	103	355	130	27	18
3	8.8	14	7.5	7.5	9.0	16	25	102	330	120	26	18
4	8.6	18	11	8.0	9.0	16	21	90	310	100	25	17
5	8.2	16	11	8.5	9.0	17	21	92	314	90	24	16
6	8.5	13	11	9.1	9.5	18	25	107	301	85	23	15
7	8.3	11	9.0	9.1	9.5	17	36	125	310	80	22	16
8	7.9	11	8.0	8.5	10	21	50	128	400	75	22	16
9	6.7	10	7.0	9.0	10	28	61	130	623	70	22	15
10	5.7	9.8	7.5	9.0	11	27	54	113	494	68	25	15
11	6.5	11	8.0	9.0	11	29	45	100	439	65	24	15
12	7.6	13	8.5	8.9	12	31	39	89	372	63	22	15
13	7.5	12	9.5	8.6	13	33	35	81	337	60	20	14
14	7.7	12	9.5	8.0	14	36	39	85	343	58	25	14
15	7.1	10	9.5	8.7	15	37	57	99	318	56	40	16
16	7.0	9.3	10	8.8	17	40	81	104	303	55	50	15
17	7.8	6.0	9.5	8.7	17	41	96	124	279	60	40	15
18	8.1	7.8	10	9.6	19	36	120	136	265	60	35	14
19	7.4	8.4	11	9.0	19	32	128	155	247	55	30	14
20	8.0	8.9	10	9.1	18	32	124	169	223	50	28	12
21	9.5	10	9.5	9.0	18	34	113	175	216	45	26	16
22	17	11	9.5	10	17	30	115	188	217	42	25	15
23	13	9.7	9.0	9.5	17	27	122	194	214	40	23	13
24	12	10	9.0	8.5	15	26	140	199	209	38	22	12
25	12	20	9.0	9.5	16	27	141	211	205	35	21	12
26	12	15	9.0	9.8	17	30	138	267	191	33	20	12
27	12	12	9.0	9.5	16	33	120	290	185	30	23	13
28	11	8.3	9.5	8.0	16	35	113	300	174	35	22	11
29	11	14	9.4	8.5	---	34	117	320	160	33	21	10
30	10	12	9.5	8.0	---	32	103	340	150	30	20	9.9
31	11	---	9.0	8.0	---	32	---	350	---	29	19	---
TOTAL	285.1	345.2	290.9	270.4	381.5	879	2334	5065	8805	1930	800	431.9
MEAN	9.20	11.5	9.38	8.72	13.6	28.4	77.8	163	294	62.3	25.8	14.4
MAX	17	20	11	10	19	41	141	350	623	140	50	18
MIN	5.7	6.0	7.0	7.0	8.5	16	21	81	150	29	19	9.9
AC-FT	565	685	577	536	757	1740	4630	10050	17460	3830	1590	857

CAL YR 1978 TOTAL 9152.9 MEAN 25.1 MAX 117 MIN 5.7 AC-FT 18150
WTR YR 1979 TOTAL 21818.0 MEAN 59.8 MAX 623 MIN 5.7 AC-FT 43280

NOTE.--No gage-height record July 16 to Sept. 10

08294200 NAMBE FALLS RESERVOIR NEAR NAMBE, NM

LOCATION.--Lat 35°50'46", long 105°54'17", in NE¼SW¼ sec.29, T.19 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, in Nambe Indian Reservation, 300 ft (91 m) upstream from Nambe Falls, 2.6 mi (4.2 km) upstream from Rio En Medio, 4.4 mi (7.1 km) southeast of Nambe Pueblo, and 5.4 mi (8.7 km) southeast of Nambe.

DRAINAGE AREA.--34.1 mi² (88.3 km²).

PERIOD OF RECORD.--February 1976 to current year.

REVISED RECORDS.--WDR NM-77-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to July 22, 1976, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by a concrete arch and earthfill dam, storage began Feb. 23, 1976. Total capacity, 2,020 acre-ft (2.49 hm³) at elevation 6,826.6 ft (2,080.75 m), crest of ogee weir spillway, including 237 acre-ft (292,000 m³) of storage in a permanent pool between elevation 6,760.9 ft (2,060.72 m), invert of outlet conduits, and 6,780.0 ft (2,066.54 m). Dead storage 121 acre-ft (149,000 m³) below elevation 6,760.9 ft (2,060.72 m). Outlet conduits are one 6-in (0.152 m) and two 12-in (0.305 m) diameter pipes. Reservoir is used for storage of irrigation water and for recreation. Figures given herein represent total storage.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,060 acre-ft (2.54 hm³) June 9, 1979, elevation, 6,827.24 ft (2,080.943 m); no storage prior to Feb. 23, 1976.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,060 acre-ft (2.54 hm³) June 9, elevation, 6,827.24 ft (2,080.943 m); minimum, 803 acre-ft (990,000 m³) Oct. 21, elevation, 6,798.87 ft (2,072.296 m).

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Bureau of Reclamation in 1976)

6,790	565	6,820	1,660
6,800	838	6,830	2,230
6,810	1,200		

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	846	813	1050	1210	1340	1500	1850	2020	2040	2040	1990	1500
2	844	816	1060	1210	1350	1500	1870	2020	2040	2030	1960	1490
3	843	832	1060	1220	1350	1510	1880	2020	2040	2030	1940	1480
4	841	845	1060	1220	1360	1520	1890	2020	2040	2030	1900	1470
5	839	857	1070	1220	1360	1520	1900	2020	2040	2030	1880	1460
6	836	866	1080	1230	1360	1530	1910	2030	2050	2030	1850	1460
7	834	874	1080	1230	1370	1540	1930	2030	2050	2030	1820	1460
8	833	881	1080	1240	1370	1550	1950	2030	2060	2030	1780	1450
9	830	888	1080	1240	1380	1560	1970	2030	2060	2030	1740	1440
10	828	895	1090	1250	1380	1570	1990	2020	2050	2030	1700	1440
11	826	904	1100	1250	1380	1580	1980	2030	2050	2030	1670	1430
12	824	913	1100	1260	1390	1590	1970	2030	2050	2030	1640	1430
13	821	920	1110	1260	1390	1600	1980	2030	2050	2030	1610	1420
14	819	927	1110	1260	1400	1620	2000	2030	2050	2030	1590	1420
15	817	934	1120	1270	1400	1630	2020	2030	2050	2030	1600	1410
16	814	940	1120	1270	1410	1650	2020	2030	2050	2030	1600	1400
17	812	945	1130	1280	1420	1660	2020	2030	2050	2030	1590	1400
18	809	950	1140	1280	1430	1680	2030	2030	2040	2030	1580	1390
19	806	955	1140	1290	1430	1690	2030	2030	2040	2030	1570	1380
20	804	961	1150	1290	1440	1700	2020	2040	2040	2020	1560	1380
21	805	967	1150	1300	1450	1720	2020	2040	2040	2020	1550	1370
22	809	973	1160	1300	1450	1730	2020	2040	2040	2020	1550	1370
23	810	978	1160	1310	1460	1740	2030	2040	2040	2020	1550	1360
24	812	988	1170	1310	1470	1750	2030	2040	2040	2020	1540	1350
25	813	1000	1170	1320	1470	1760	2030	2040	2040	2020	1540	1340
26	814	1020	1180	1320	1480	1780	2020	2040	2040	2020	1530	1340
27	815	1020	1180	1330	1480	1790	2020	2040	2040	2020	1530	1330
28	815	1030	1180	1330	1490	1800	2030	2040	2040	2020	1530	1320
29	814	1040	1190	1330	---	1820	2030	2040	2040	2020	1520	1310
30	813	1040	1200	1340	---	1830	2030	2040	2040	2020	1510	1310
31	813	---	1200	1340	---	1840	---	2040	---	2000	1500	---
MAX	846	1040	1200	1340	1490	1840	2030	2040	2060	2040	1990	1500
MIN	804	813	1050	1210	1340	1500	1850	2020	2040	2000	1500	1310
(†)	6799.18	6806.04	6810.00	6813.22	6816.52	6823.44	6850.66	6826.98	6826.85	6826.30	6816.80	6812.44
(‡)	-36	+227	+160	+140	+150	+350	+190	+10	0	-40	-500	-190

CAL YR 1978 MAX 2030 MIN 657 ‡ +545
WTR YR 1979 MAX 2060 MIN 804 ‡ +461

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08294210 RIO NAMBE BELOW NAMBE FALLS DAM, NEAR NAMBE, NM.

LOCATION.--Lat 35°50'46", long 105°54'17", in NE¼SW¼ sec. 29, T.19 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, in Nambe Indian Reservation, in outlet conduits of Nambe Falls Dam, 300 ft (91 m) upstream from Nambe Falls, 2.6 mi (4.2 km) upstream from Rio En Medio, 4.4 mi (7.1 km) southeast of Nambe Pueblo, and 5.4 mi (8.7 km) southeast of Nambe.

DRAINAGE AREA.--34.1 mi² (88.3 km²).

PERIOD OF RECORD.--January to September 1979.

GAGE.--Totalizing flowmeters in each of three outlet conduits in Nambe Falls Dam.

REMARKS.--Flow regulated by Nambe Falls Reservoir (station 08294200). Outlet conduits are one 6-in (0.152 m) and two 12-in (0.305 m) diameter pipes. During periods of spill at Nambe Falls Dam, record computed at site 1,100 ft (335 m) downstream, site of discontinued station 08294300, Rio Nambe at Nambe Falls.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR CURRENT YEAR.--Maximum discharge during period January to September, 312 ft³/s (8.84 m³/s) June 9, gage height, 1.96 ft (0.597 m) at site 1,100 ft (335 m) downstream (maximum release and spill computed at Nambe Falls Dam, 250 ft³/s, 7.08 m³/s, June 9); minimum daily discharge, 0.48 ft³/s (0.014 m³/s) many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1				.48	.48	.48	.49	35	128	83	22	11
2				.48	.48	.48	.49	33	128	78	24	11
3				.49	.48	.48	.49	33	116	70	24	11
4				.48	.48	.48	.49	32	114	67	24	9.3
5				.48	.48	.48	.49	32	122	61	24	8.0
6				.48	.48	.48	.49	31	119	54	27	8.0
7				.48	.48	.48	.49	33	125	56	27	8.0
8				.48	.48	.49	.49	37	158	51	28	8.0
9				.48	.48	.49	.49	42	236	48	28	8.0
10				.48	.48	.49	.49	39	177	47	28	8.0
11				.48	.48	.49	10	28	163	45	28	8.0
12				.48	.48	.49	12	28	137	44	23	8.0
13				.48	.48	.49	4.5	31	130	39	20	8.0
14				.48	.48	.49	4.5	32	134	38	20	8.0
15				.48	.48	.48	4.0	37	137	37	20	8.0
16				.48	.48	.48	12	37	137	37	20	8.0
17				.48	.48	.48	25	34	134	39	19	8.0
18				.48	.48	.48	35	45	128	41	19	8.0
19				.48	.48	.48	44	52	117	39	19	8.0
20				.48	.48	.48	44	55	111	34	19	8.0
21				.48	.49	.49	44	54	106	28	14	8.0
22				.48	.49	.49	42	56	101	25	11	7.8
23				.48	.49	.49	42	64	104	22	11	7.8
24				.48	.49	.49	45	75	101	20	11	7.8
25				.48	.49	.49	43	88	99	20	11	7.8
26				.48	.49	.49	48	93	101	20	11	8.0
27				.48	.49	.49	35	107	101	17	11	8.0
28				.48	.48	.49	31	107	99	21	11	6.5
29				.48	---	.49	35	107	96	20	11	8.0
30				.48	---	.49	35	105	91	13	11	8.0
31				.48	---	.48	---	111	---	17	11	---
TOTAL				14.89	13.51	15.05	599.90	1693	3750	1231	587	248.0
MEAN				.48	.48	.49	20.0	54.6	125	39.7	18.9	8.27
MAX				.49	.49	.49	48	111	236	83	28	11
MIN				.48	.48	.48	.49	28	91	13	11	6.5
AC-FT				30	27	30	1190	3360	7440	2440	1160	492

08294300 RIO NAMBE AT NAMBE FALLS, NEAR NAMBE, NM

LOCATION.--Lat 35°50'46", long 105°54'29", in NW¼SW¼ sec.29, T.19 N., R.10 E., Santa Fe County, Hydrologic Unit 13020101, in Nambe Indian Reservation, on left bank 800 ft (240 m) downstream from Nambe Falls, 1,100 ft (335 m) downstream from Nambe Falls Dam, 2.4 mi (3.9 km) upstream from Rio En Medio, 4.2 mi (6.8 km) southeast of Nambe Pueblo and 5.2 mi (8.4 km) southeast of Nambe.

DRAINAGE AREA.--34.2 mi^2 (88.6 km^2).

PERIOD OF RECORD.--March 1963 to December 1978 (discontinued).

REVISED RECORDS.--WDR NM-77-1: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6,513.68 ft (1,985.370 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Flow regulated by Nambe Falls Reservoir (station 08294200) since Feb. 22, 1976. Outlet conduits are one 6 in (0.152 m) and two 12 in (0.305 m) diameter pipes. No diversions above station.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--12 years (water years 1964-75), 10.7 ft^3/s (0.303 m^3/s), 7,750 acre-ft/yr (9.56 hm^3/yr), prior to completion of Nambe Falls Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,090 ft^3/s (30.9 m^3/s) Aug. 8, 1967, gage height, about 6.0 ft (1.83 m), from floodmarks, from rating curve extended above 44 ft^3/s (1.25 m^3/s) on basis of field estimate of peak flow; minimum daily, 0.30 ft^3/s (0.008 m^3/s) Aug. 21, 22, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge during period October to December 1978, 5.6 ft^3/s (0.16 m^3/s) many days; minimum daily, 0.50 ft^3/s (0.014 m^3/s) many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.6	5.3	1.2									
2	5.6	3.0	1.2									
3	5.6	.50	1.2									
4	5.6	.50	1.2									
5	5.6	.50	1.2									
6	5.6	.50	1.2									
7	5.6	.50	1.2									
8	5.6	.50	1.2									
9	5.6	.50	1.2									
10	5.6	.50	1.2									
11	5.6	.50	1.2									
12	5.3	.50	1.2									
13	5.3	.60	1.2									
14	5.3	.60	1.2									
15	5.3	.80	1.2									
16	5.3	.80	1.2									
17	5.3	.80	1.2									
18	5.3	1.0	1.2									
19	5.3	1.0	1.2									
20	5.3	1.0	1.2									
21	5.3	1.0	1.2									
22	5.3	1.0	1.2									
23	5.6	1.0	1.2									
24	5.6	1.0	1.2									
25	5.6	1.0	1.2									
26	5.0	1.0	1.2									
27	5.0	1.0	1.2									
28	5.0	1.0	1.2									
29	5.0	1.2	1.2									
30	5.0	1.2	1.2									
31	5.0	---	1.2									
TOTAL	166.7	30.30	37.2									
MEAN	5.38	1.01	1.20									
MAX	5.6	5.3	1.2									
MIN	5.0	.50	1.2									
AC-FT	331	60	74									

CAL YR 1978 TOTAL 3352.60 MEAN 9.19 MAX 41 MIN .50 AC-FT 6650

08312600 POJOAQUE RIVER AT SAN ILDEFONSO PUEBLO, NM

LOCATION.--Lat 35°53'51", long 106°06'24", Santa Fe County, Hydrologic Unit 13020101, in San Ildefonso Pueblo Grant, on right bank 0.7 mi (1.1 km) northeast of San Ildefonso Pueblo, and 1.0 mi (1.6 km) upstream from mouth.

DRAINAGE AREA.--184 mi^2 (477 km^2), approximately.

PERIOD OF RECORD.--May 1972 to September 1979 (discontinued). (Operated as a miscellaneous measurement site and high-flow station only).

GAGE.--Water-stage recorder. Altitude of gage is 5,560 ft (1,695 m), from topographic map.

REMARKS.--Records poor. Diversions for irrigation of about 4,900 acres (19.8 km^2), 1973 determination, above station. Flow regulated by Nambe Falls Reservoir (station 08294200) since 1975. Mean daily discharge computed only when flow exceeds about 40 ft^3/s (1.13 m^3/s). Several observations of water temperature were made during the year. See table below for results of discharge measurements made during year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,100 ft^3/s (173 m^3/s) Aug. 19, 1972, gage height, 6.80 ft (2.073 m), from floodmarks, from rating curve extended above 110 ft^3/s (3.1 m^3/s) on basis of slope-area measurements at gage heights 5.12 ft (1.561 m) and 6.80 ft (2.073 m); no flow many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,320 ft^3/s (37.4 m^3/s) at 2100 hours Nov. 3, gage height, 4.83 ft (1.472 m), from rating curve extended above 200 ft^3/s (5.7 m^3/s) as explained above, no other peak above base of 500 ft^3/s (14 m^3/s); no flow many days.

DISCHARGE MEASUREMENTS, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Oct. 5	0	Dec. 29	2.7	May 10	33	June 15	195
Nov. 2	.03	Jan. 30	.30	May 17	30	July 13	.17
Nov. 3	11	Mar. 22	3.4	May 29	139	Aug. 9	.23
Dec. 1	.29	Apr. 20	42	June 5	179	Sept. 4	.96

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		-					-	-	126			
2		-					-	-	133			
3		136					-	-	136			
4		-					-	-	142			
5		-					-	-	145			
6		-					-	-	133			
7		-					-	-	152			
8		-					-	-	186			
9		-					-	-	217			
10		-					-	-	217			
11		-					-	-	208			
12		-					-	-	208			
13		-					-	-	212			
14		-					-	-	203			
15		-					-	-	199			
16		-					-	-	180			
17		-					-	-	160			
18		-					-	-	140			
19		-					-	40	120			
20		-					42	48	100			
21		-					43	61	85			
22		-					45	78	70			
23		-					49	91	60			
24		-					46	102	50			
25		-					45	105	40			
26		-					50	129	-			
27		-					40	129	-			
28		-					-	149	-			
29		-					-	149	-			
30		-					-	113	-			
31								113				

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM
(National stream-quality accounting network, surveillance network,
and radiochemical network station)

LOCATION.--Lat 35°52'29", long 106°08'30", in SW¼SW¼ sec.18, T.19 N., R.8 E., Santa Fe County, Hydrologic Unit 13020101, in San Ildefonso Pueblo Grant, near right bank on downstream end of pier of former railway bridge, 400 ft (120 m) downstream from bridge on State Highway 4, 1.8 mi (2.9 km) southwest of San Ildefonso Pueblo, 2.5 mi (4.0 km) downstream from Pojoaque River, 6.8 mi (10.9 km) west of Pojoaque, and at mile 1,614.2 (2,597.2 km).

DRAINAGE AREA.--14,300 mi² (37,040 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--February 1895 to December 1905, June 1909 to current year. Monthly discharge only for some periods, published in WSP 1312. In early reports this record was published as "at Water Tank," as "at Rio Grande," and as "near Buckman."

REVISED RECORDS.--WSP 828: Drainage area. WSP 1512: 1895-99, 1904-6, 1911-12, 1914, 1931(M), 1935. WSP 1712: 1904(M).

GAGE.--Water-stage recorder. Datum of gage is 5,488.48 ft (1,672.889 m) National Geodetic Vertical Datum of 1929. See WSP 1312, 1732, or 1923 for history of changes prior to June 1, 1910.

REMARKS.--Water-discharge records good. Considerable regulation by Heron Reservoir (station 08284510), El Vado Reservoir (station 08285000) and Abiquiu Reservoir (station 08286900) on Rio Chama, which can contribute a major portion of the total flow. Flow affected by release of transmountain water from Heron Reservoir since May 1971. Diversions above station for irrigation of about 620,000 acres (2,500 km²) in Colorado and 75,000 acres (300 km²) in New Mexico. Gage-height telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,400 ft³/s (691 m³/s) May 23, 1920; maximum gage height, 14.5 ft (4.42 m) Sept. 29, 1904, present site and datum; minimum daily discharge, 60 ft³/s (1.70 m³/s) July 4, 5, 1902.

EXTREMES OUTSIDE PERIOD OF RECORD.--The 1920 flood is greatest since at least 1884 and probably since 1741; information from W. H. Yeo's file on floods.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 5,200 ft³/s (150 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 9	1800	6760	191	7.61	2.320	June 9	1630	*12300	348	9.93	3.027

Minimum discharge, 253 ft³/s (7.17 m³/s) Oct. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	276	643	637	552	547	710	1810	5230	9780	5490	1500	536
2	279	613	572	433	587	743	2130	5260	9830	5380	1480	481
3	282	1040	609	449	614	839	1790	5200	9360	5290	1370	452
4	280	840	526	504	567	778	1570	5120	9150	5250	1280	437
5	271	677	549	535	527	743	1640	5250	8370	5090	1200	419
6	264	639	544	590	549	761	1670	5430	8220	4820	1130	1430
7	258	625	500	614	566	839	1290	5710	8050	4740	1060	1530
8	258	656	450	553	566	1230	2130	6170	8500	4610	1000	1370
9	264	677	300	500	568	1850	2320	6540	11500	4490	977	1150
10	274	630	350	516	595	1750	2800	6340	10400	4340	1040	1140
11	277	625	600	544	574	1650	3200	5560	10100	4430	1070	1290
12	275	651	750	582	547	1500	3150	4900	9990	4330	1030	1270
13	285	693	920	581	564	1500	3100	4580	8950	4000	1070	1120
14	294	699	950	525	634	1850	2890	4390	8190	3830	1160	1050
15	289	699	1020	556	716	1850	1840	4450	7960	3670	1720	958
16	287	699	923	583	804	1890	2760	4510	8180	3510	2000	950
17	279	699	812	583	773	3380	3750	5260	8430	3150	1500	992
18	281	635	846	721	713	3430	4400	5890	8390	3040	1380	1090
19	366	600	1030	814	680	1880	4650	6020	7970	3160	1430	614
20	484	595	1080	646	744	1340	4690	6320	7280	3130	1430	380
21	580	585	927	570	775	1430	4710	7600	6530	3110	1290	324
22	665	576	670	579	726	1440	4720	8360	6050	3060	1170	334
23	717	585	591	587	705	1380	4870	7670	5780	2930	1110	315
24	757	610	558	530	721	1390	5220	8130	5730	2740	1060	293
25	780	942	550	564	715	2040	5410	8030	5920	2620	1010	281
26	797	870	548	570	677	2140	5610	8840	5860	2150	951	286
27	763	771	540	550	682	2180	5510	9370	5880	1890	932	285
28	715	718	586	513	749	2350	5270	9560	5810	1740	866	295
29	711	650	608	585	---	2510	5220	9730	5650	1740	756	286
30	691	651	644	536	---	2570	5070	9820	5610	1650	680	883
31	660	---	627	546	---	2230	---	9850	---	1560	600	---
TOTAL	13659	20593	20817	17511	18185	52173	105190	205090	237420	110940	36252	22241
MEAN	441	686	672	565	649	1683	3506	6616	7914	3579	1169	741
MAX	797	1040	1080	814	804	3430	5610	9850	11500	5490	2000	1530
MIN	258	576	300	433	527	710	1290	4390	5610	1560	600	281
AC-FT	27090	40850	41290	34730	36070	103500	208600	406800	470900	220000	71910	44120

CAL YR 1978 TOTAL 365915 MEAN 1003 MAX 3780 MIN 248 AC-FT 725800
WTR YR 1979 TOTAL 860071 MEAN 2356 MAX 11500 MIN 258 AC-FT 1706000

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1946 to current year.
WATER TEMPERATURES: October 1948 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1947 to current year.

INSTRUMENTATION.--Continuous water-temperature recorder since April, 1954. Continuous specific conductance recorder since October 1978.

REMARKS.--Daily mean temperature is computed by averaging the maximum and minimum temperatures for each day.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,310 micromhos Aug. 5, 1963; minimum daily, 152 micromhos July 23, 24, 1979.
WATER TEMPERATURES: Maximum, 31.0°C Aug. 4, 5, 1954; minimum, 0.0°C on many days during winter periods each year.
SEDIMENT CONCENTRATIONS: Maximum daily, 43,500 mg/L Aug. 21, 1955; minimum daily, 11 mg/L July 27, 1963, and Feb. 7, 1974.
SEDIMENT LOADS: Maximum daily, 366,000 tons (332,000 tonnes) Aug. 23, 1961; minimum daily, 3 tons (2.7 tonnes) July 27, 1963.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 472 micromhos Nov. 15; minimum daily, 152 micromhos July 23, 24.
WATER TEMPERATURES: Maximum, 25.0°C Aug. 7; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 7,700 mg/L Nov. 3; minimum daily, 16 mg/L Sept. 24.
SEDIMENT LOADS: Maximum daily, 106,000 tons (96,200 tonnes) June 9; minimum daily, 13 tons (12 tonnes) Sept. 24.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)
OCT 12...	1110	275	333	8.2	20.0	13.0	19	9.8	12	130
NOV 08...	1110	630	325	8.4	13.5	9.5	39	10.1	13	120
DEC 06...	1158	495	345	8.4	-1.0	1.5	--	12.2	--	--
JAN 10...	1111	482	364	8.2	4.5	.0	6.1	12.1	4	130
FEB 07...	1055	465	365	8.4	2.5	.0	5.4	12.6	13	150
MAR 07...	1030	948	355	8.2	16.5	8.0	22	11.6	30	130
APR 13...	1000	3150	370	8.2	15.5	7.5	62	9.2	18	150
MAY 02...	1115	5360	220	8.2	17.5	11.0	64	9.6	30	84
JUN 06...	1000	8260	174	8.2	23.0	14.0	100	8.8	26	67
JUL 11...	1300	4470	190	7.8	31.0	19.5	29	--	15	71
AUG 09...	1245	957	215	8.3	28.5	23.0	2.8	10.2	16	80
SEP 05...	1210	422	323	8.1	28.5	20.0	3.7	9.1	11	110

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT 12...	--	41	7.4	21	.8	3.2	120	42	7.1
NOV 08...	14	39	6.5	21	.8	3.0	110	40	6.8
DEC 06...	--	--	--	--	--	--	--	--	--
JAN 10...	30	39	8.0	19	.7	3.1	100	56	7.2
FEB 07...	38	46	8.0	23	.8	2.6	110	64	8.5
MAR 07...	23	41	7.5	22	.8	2.8	110	64	7.4
APR 13...	58	43	9.5	20	.7	1.6	89	85	4.8
MAY 02...	22	25	5.2	11	.5	2.0	62	38	3.5
JUN 06...	12	21	3.5	8.4	.4	2.2	55	24	2.9
JUL 11...	16	22	3.9	9.9	.5	2.1	55	37	3.2
AUG 09...	2	25	4.2	13	.6	2.7	78	28	4.0
SEP 05...	0	34	6.0	19	.8	3.1	110	42	5.6

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT 12...	.6	23	225	217	18	.01	.01	.01	.51
NOV 08...	.4	24	216	207	46	.02	.05	.01	.44
DEC 06...	--	--	--	--	--	--	--	--	--
JAN 10...	.4	25	246	218	17	.12	.13	.01	.44
FEB 07...	.4	24	251	244	22	.20	.22	.01	.18
MAR 07...	.5	20	231	232	76	.10	.05	.02	.30
APR 13...	.3	17	240	236	159	.17	.17	.03	.24
MAY 02...	.2	15	158	138	214	.15	.16	.04	.54
JUN 06...	.2	14	123	110	--	.07	.09	.04	.47
JUL 11...	.2	18	127	130	93	.08	.04	.03	.08
AUG 09...	.3	23	144	148	41	.02	.00	.01	.31
SEP 05...	.5	23	206	199	17	.00	.01	.01	.70

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT 12...	.53	.050	.01	80	20	--	3.1	2.4	.9
NOV 08...	.47	.090	.04	60	40	--	4.8	2.4	1.7
DEC 06...	--	--	--	--	--	--	--	--	--
JAN 10...	.57	.040	.00	60	20	--	2.2	1.6	.5
FEB 07...	.39	.020	.04	50	10	--	2.2	1.7	.7
MAR 07...	.42	.040	.01	40	10	30	--	2.6	2.3
APR 13...	.44	.130	.00	50	30	--	5.9	4.2	--
MAY 02...	.73	.100	.03	30	30	--	8.6	6.3	1.8
JUN 06...	.58	.250	.01	30	220	20	--	6.9	2.5
JUL 11...	.19	.140	.08	70	90	--	6.2	5.6	1.1
AUG 09...	.34	.090	.05	20	630	10	--	2.3	1.4
SEP 05...	.71	.050	.01	50	10	--	4.5	3.4	2.2

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
OCT 12...	1110	--	--	--	--	80	--	--	--	--
NOV 08...	1110	--	--	--	--	60	--	--	--	--
JAN 10...	1111	--	--	--	--	60	--	--	--	--
FEB 07...	1055	--	--	--	--	50	--	--	--	--
MAR 07...	1030	2	2	0	100	40	7	6	10	0
APR 13...	1000	--	--	--	--	50	--	--	--	--
MAY 02...	1115	--	--	--	--	30	--	--	--	--
JUN 06...	1000	2	2	100	0	30	0	1	10	10
JUL 11...	1300	--	--	--	--	70	--	--	--	--
AUG 09...	1245	2	2	100	40	20	0	0	20	0
SEP 05...	1210	--	--	--	--	50	--	--	--	--

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT 12...	--	--	--	--	--	20	--	--	--	--
NOV 08...	--	--	--	--	--	40	--	--	--	--
JAN 10...	--	--	--	--	--	20	--	--	--	--
FEB 07...	--	--	--	--	--	10	--	--	--	--
MAR 07...	3	0	7	0	1600	10	100	80	80	30
APR 13...	--	--	--	--	--	30	--	--	--	--
MAY 02...	--	--	--	--	--	30	--	--	--	--
JUN 06...	2	0	13	3	5000	220	21	0	290	20
JUL 11...	--	--	--	--	--	90	--	--	--	--
AUG 09...	0	0	3	3	900	630	9	0	100	10
SEP 05...	--	--	--	--	--	10	--	--	--	--

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT									
12...	--	--	14	--	--	--	--	--	--
NOV									
08...	--	--	9	--	--	--	--	--	--
JAN									
10...	--	--	7	--	--	--	--	--	--
FEB									
07...	--	--	19	--	--	--	--	--	--
MAR									
07...	.1	.1	10	0	0	0	0	60	10
APR									
13...	--	--	4	--	--	--	--	--	--
MAY									
02...	--	--	1	--	--	--	--	--	--
JUN									
06...	1.7	1.2	--	1	0	0	0	70	20
JUL									
11...	--	--	3	--	--	--	--	--	--
AUG									
09...	1.2	.4	6	0	0	0	0	30	<3
SEP									
05...	--	--	8	--	--	--	--	--	--

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)
AUG							
09...	1245	2	0	4	4	0	.01

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L) (00530)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DISSOLVED, EXTRACTION (UG/L) (80020)
OCT										
12...	1110	18	6.9	.7	4.3	.8	4.0	.8	.05	3.4
APR										
13...	1000	159	<4.4	9.5	2.6	4.4	2.4	4.2	.05	1.9

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)
AUG										
09...	1245	.0	0	.00	.0	.0	0	.00	.0	.00

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)
AUG										
09...	.0	.00	.0	.00	.0	.00	.00	.0	.00	.0

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	PERTHANE TOTAL (UG/L) (39034)	MIREX, TOTAL (UG/L) (39755)
AUG										
09...	.00	.0	.00	.0	.00	.0	0	0	.00	.00

Results of Analysis of Water and Bed Materials for Selected Chlorinated Hydrocarbon Isomers

Date	Time	o-p'-DDE	o-p'-DDD	o-p'DDT	cis-chlordane	trans-chlordane	α-BHC	Hexachlorobenzene	cis-nonachlor
Aug 09	1245 (w)	0	0	0	0	0	0	0	0
	(s)	0	0	0	0	0	0	0	0

NOTE: Reporting units are ug/L for water samples (w) and ug/kg for bed material sediment samples (s). The lowest detectable limit is 0.01 ug/L for water samples and 0.1 ug/kg for sediment samples.

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
12...	1110	340	98
NOV			
08...	1110	270	250
DEC			
06...	1158	190	88
JAN			
10...	1111	32	33
FEB			
07...	1055	19	34
MAR			
07...	1030	73	68
APR			
13...	1000	230	92
MAY			
02...	1115	620	360
JUN			
06...	1000	330	540
JUL			
11...	1300	1000	260
AUG			
09...	1245	230	160
SEP			
05...	1210	180	68

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 8,78		MAR 7,79		MAY 2,79		JUN 6,79	
TIME	1110		1030		1115		1000	
TOTAL CELLS/ML	7200		4800		4100		670	
DIVERSITY: DIVISION	0.9		0.7		0.2		0.3	
.CLASS	0.9		0.7		0.2		0.3	
..ORDER	1.7		0.9		0.6		0.6	
...FAMILY	2.3		2.5		1.6		1.0	
....GENUS	2.4		2.6		1.8		1.3	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHLOROCOCCACEAE								
....CHLOROCOCCUM	--	-	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	--	-
...HYDRODICTYACEAE								
....PEDIASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	--	-	--	-	56	1	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	72	1	34	1	*	0	--	-
....CHLORELLA	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....GLOEOACTINIUM	--	-	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....SCENEDESMUS	290	4	--	-	28	1	--	-
....TETRASTRUM	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	*	0	--	-	*	0	39	6
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	3100#	44	130	3	250	6	39	6
....MELOSIRA	120	2	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	34	1	28	1	--	-
....COCCONEIS	120	2	--	-	84	2	--	-
....RHOICOSPHENIA	72	1	--	-	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	*	0	--	-
....EPITHEMIA	--	-	--	-	42	1	--	-
....RHOPALODIA	--	-	--	-	*	0	--	-
...DIATOMACEAE								
....DIATOMA	*	0	770#	16	--	-	--	-
...EUNOTIACEAE								
....CERATONEIS	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	1700#	24	440	9	2900#	71	510#	76
....SYNEDRA	--	-	300	6	170	4	39	6
...GOMPHONEMATACEAE								
....GOMPHONEMA	120	2	67	1	56	1	--	-
...NAVICULACEAE								
....CALONEIS	--	-	--	-	*	0	--	-
....NAVICULA	72	1	1800#	38	240	6	--	-
...NITZSCHIACEAE								
....NITZSCHIA	380	5	400	8	140	3	39	6
...SURIRELLACEAE								
....CYMATOPLEURA	*	0	--	-	*	0	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	1000	14	770#	16	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 8,78		MAR 7,79		MAY 2,79		JUN 6,79	
TIME	1110		1030		1115		1000	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	34	1	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	*	0	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

DATE	JUL 11,79		AUG 9,79		SEP 5,79	
TIME	1300		1245		1210	
TOTAL CELLS/ML	2800		35000		36000	
DIVERSITY: DIVISION	0.7		1.0		1.2	
.CLASS	0.7		1.0		1.2	
..ORDER	1.2		1.2		1.2	
...FAMILY	2.5		1.5		1.5	
....GENUS	2.7		1.6		1.6	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHLOROCOCCACEAE						
....CHLOROCOCCUM	--	-	--	-	*	0
...COELASTRACEAE						
....COELASTRUM	--	-	3100	9	--	-
...HYDRODICTYACEAE						
....PEDIASTRUM	50	2	--	-	--	-
...MICRACTINIACEAE						
....MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	120	4	--	-	--	-
....CHLORELLA	--	-	--	-	14000#	40
....DICTYOSPHAERIUM	33	1	--	-	--	-
....GLOEOACTINIUM	--	-	880	2	--	-
....SELENASTRUM	--	-	220	1	--	-
...SCENEDESMACEAE						
....ACTINASTRUM	--	-	--	-	380	1
....SCENEDESMUS	190	7	4400	12	1000	3
....TETRASTRUM	--	-	--	-	1000	3
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	880	2	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	240	9	25000#	70	17000#	49
....MELOSIRA	75	3	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	--	-
....COCCONEIS	42	2	--	-	--	-
....RHOICOSPHENIA	*	0	--	-	--	-
...CYMBELLACEAE						
....CYMBELLA	25	1	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-
....RHOPALODIA	--	-	--	-	--	-
...DIATOMACEAE						
....DIATOMA	75	3	--	-	--	-
...EUNOTIACEAE						
....CERATONEIS	*	0	--	-	--	-
...FRAGILARIACEAE						
....FRAGILARIA	1400#	49	--	-	--	-
....SYNEDRA	17	1	--	-	*	0
...GOMPHONEMATACEAE						
....GOMPHONEMA	42	2	--	-	--	-
...NAVICULACEAE						
....CALONEIS	--	-	--	-	--	-
....NAVICULA	110	4	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	330	12	440	1	*	0
...SURIRELLACEAE						
....CYMATOPLEURA	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON -- Continued

DATE TIME	JUL 11,79 1300		AUG 9,79 1245		SEP 5,79 1210	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOCHRYSIDACEAE						
....CHROOMONAS	*	0	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	--	-	880	2	1000	3
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	25	1	--	-	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..GYMNODINIALES						
...GYMNODINIACEAE						
....GYMNODINIUM	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
PERIPHYTON

DATE	TIME	LENGTH OF EXPO-SURE (DAYS) (00022)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	SAMPLING METHOD
OCT								
12...	1110	22	12.6	10.9	2.30	.000	--	Polyetylene strip
DEC								
06...	1158	28	2.60	2.05	.440	.010	--	•
MAR								
07...	1030	28	106	95.4	24.0	21.4	--	•
AUG								
09...	1245	29	.550	.470	.250	.000	320	•

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)
NOV									
03...	1620	928	10.5	11500	28800	52	59	80	91
08...	1150	635	9.5	147	252	--	--	--	--
21...	1120	581	6.0	228	358	--	--	--	--
DEC									
06...	1158	495	1.5	291	389	--	--	--	--
JAN									
10...	1111	482	.0	94	122	--	--	--	--
19...	1705	755	3.0	691	1410	31	36	40	45
FEB									
07...	1055	465	.0	57	72	--	--	--	--
MAR									
07...	1030	948	8.0	245	627	--	--	--	--
10...	0920	1750	3.0	3410	16100	17	20	28	42
17...	1555	3860	7.0	3240	33800	14	19	26	44
APR									
13...	1000	3150	7.5	569	4840	--	--	--	--
19...	1700	4840	13.0	1800	23500	18	21	27	49
26...	1655	5710	11.0	1520	23400	13	14	18	34
MAY									
02...	1115	5360	11.0	1920	27800	--	--	--	--
22...	1715	8620	15.0	1630	37900	18	22	27	49
JUN									
02...	1645	10000	16.0	992	26800	17	20	27	46
06...	1000	8260	14.0	844	18800	--	--	--	--
09...	1700	12200	15.0	2710	89300	21	25	35	60
JUL									
11...	1300	4470	19.5	360	4350	--	--	--	33
AUG									
09...	1245	957	23.0	92	238	--	--	--	--
15...	1740	2020	19.0	4580	25000	41	49	65	87
16...	0655	2060	17.5	4770	26500	38	52	70	91
SEP									
05...	1210	422	20.0	23	26	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM (70347)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
NOV									
03...	97	100	--	--	--	--	--	--	--
08...	--	--	--	--	--	89	--	--	--
21...	--	--	--	--	--	13	--	--	--
DEC									
06...	--	--	--	--	--	9	--	--	--
JAN									
10...	--	--	--	--	--	18	--	--	--
19...	60	81	96	99	100	--	--	--	--
FEB									
07...	--	--	--	--	--	35	--	--	--
MAR									
07...	--	--	--	--	--	39	--	--	--
10...	62	91	100	--	--	--	--	--	--
17...	65	90	100	--	--	--	--	--	--
APR									
13...	--	--	--	--	--	55	--	--	--
19...	72	97	100	--	--	--	--	--	--
26...	59	95	100	--	--	--	--	--	--
MAY									
02...	--	--	--	--	--	12	--	--	--
22...	74	95	100	--	--	--	--	--	--
JUN									
02...	68	97	100	--	--	--	--	--	--
06...	--	--	--	--	--	38	--	--	--
09...	85	99	100	--	--	--	--	--	--
JUL									
11...	46	68	100	--	--	--	--	--	--
AUG									
09...	--	--	--	--	--	58	69	85	100
15...	97	99	100	--	--	--	--	--	--
16...	96	99	100	--	--	--	--	--	--
SEP									
05...	--	--	--	--	--	87	92	97	100

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	363	273	373	352	410	349	371	233	193	177	186	288
2	363	290	364	335	355	350	403	228	202	181	185	304
3	355	308	357	362	358	350	386	232	206	183	186	312
4	345	362	347	361	374	354	381	237	199	185	190	327
5	355	350	354	350	362	359	393	233	193	171	198	346
6	352	340	368	340	371	376	393	216	197	174	203	280
7	349	340	350	364	344	358	377	207	188	209	212	247
8	355	330	356	358	344	307	378	213	187	190	216	252
9	355	329	388	354	341	286	355	213	244	191	224	256
10	349	327	437	336	370	306	355	217	206	191	244	259
11	350	311	400	340	364	353	372	217	220	186	242	258
12	343	330	386	351	362	333	384	214	219	183	227	277
13	353	330	398	350	362	299	368	214	219	186	221	271
14	353	339	429	344	369	278	365	212	220	189	223	273
15	345	320	418	368	359	294	294	212	203	185	282	273
16	352	333	417	350	369	252	303	204	192	184	297	275
17	345	322	406	364	366	396	322	203	191	187	302	275
18	345	327	395	381	333	339	332	192	190	200	230	269
19	333	324	394	370	356	312	313	184	192	180	234	285
20	349	327	381	382	348	292	388	180	192	176	221	348
21	309	329	370	379	348	372	273	180	194	166	222	383
22	277	329	357	373	349	366	269	205	197	166	228	387
23	256	329	359	365	359	312	248	187	195	167	234	389
24	256	335	359	362	370	360	250	186	190	163	234	394
25	234	347	365	357	367	386	247	180	193	169	236	399
26	244	363	346	343	367	381	230	184	185	174	237	398
27	248	344	349	340	349	389	237	186	183	174	245	395
28	253	335	363	353	360	396	232	180	178	182	245	406
29	258	329	363	365	---	406	235	178	177	186	254	394
30	268	349	379	382	---	416	231	176	177	183	265	275
31	267	---	361	377	---	408	---	180	---	183	273	---
MEAN	319	330	377	358	360	346	323	203	197	181	232	317

WTR YR 1979 MEAN 295 MAX 437 MIN 163

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN OCTOBER	MEAN	MAX	MIN NOVEMBER	MEAN	MAX	MIN DECEMBER	MEAN	MAX	MIN JANUARY	MEAN
1				---	---	---	372	360	367	440	424	433
2				---	---	---	372	362	369	472	438	458
3				---	---	---	374	368	372	468	452	459
4				---	---	---	376	368	372	454	440	450
5				---	---	---	378	370	374	454	446	450
6				---	---	---	380	370	376	450	438	446
7				---	---	---	398	380	391	450	428	441
8				408	394	399	418	398	410	458	438	448
9				404	378	395	420	414	417	456	444	450
10				400	390	395	424	410	418	448	356	426
11				396	392	393	444	424	431	418	392	405
12				396	386	392	448	436	444	414	406	410
13				396	380	390	450	442	447	414	410	411
14				396	390	393	454	418	429	---	---	---
15				472	368	387	438	426	432	---	---	---
16				374	362	370	438	424	433	---	---	---
17				374	358	367	434	432	433	---	---	---
18				372	358	366	436	432	433	---	---	---
19				372	356	365	440	432	436	---	---	---
20				370	356	365	440	434	439	---	---	---
21				368	364	366	442	426	434	---	---	---
22				368	362	365	432	420	426	---	---	---
23				368	360	366	428	422	426	---	---	---
24				368	366	367	428	416	423	---	---	---
25				370	360	365	426	416	422	---	---	---
26				372	362	367	426	416	422	---	---	---
27				372	364	369	434	416	425	---	---	---
28				372	360	369	428	418	424	---	---	---
29				372	364	369	432	418	426	---	---	---
30				372	362	368	434	422	427	---	---	---
31				---	---	---	434	422	428	---	---	---
MONTH				472	356	376	454	360	416	472	356	437

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG.°C), RECORDER MAXIMUM, MINIMUM, AND MEAN,
WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	---	---	---	---	---	---	362	346	353	292	276	285
2	---	---	---	---	---	---	372	358	365	290	278	285
3	---	---	---	---	---	---	360	348	355	288	278	283
4	---	---	---	---	---	---	362	346	355	286	272	279
5	---	---	---	---	---	---	362	350	356	282	268	274
6	---	---	---	---	---	---	366	350	358	278	262	270
7	396	310	377	370	336	340	372	342	353	272	258	264
8	396	358	383	384	340	374	378	368	372	264	252	259
9	396	366	387	382	364	370	382	376	379	260	250	257
10	402	390	396	364	358	360	380	374	377	260	250	255
11	402	382	395	362	346	352	380	374	377	258	244	251
12	394	352	382	360	348	354	384	374	380	254	244	249
13	374	356	364	364	350	357	386	370	379	254	240	247
14	396	368	383	364	356	360	390	362	378	252	240	246
15	402	392	397	364	350	357	380	366	371	252	242	246
16	402	386	399	364	356	360	372	348	360	250	242	246
17	386	386	386	366	352	361	358	342	351	248	240	243
18	---	---	---	364	346	357	354	346	350	246	228	236
19	---	---	---	362	356	360	354	338	346	238	172	212
20	---	---	---	362	350	356	350	324	337	188	166	174
21	---	---	---	354	344	348	340	320	331	202	192	195
22	---	---	---	352	344	348	334	316	325	208	188	191
23	---	---	---	354	342	348	324	308	316	190	178	183
24	---	---	---	356	342	350	318	296	307	186	172	178
25	---	---	---	360	348	354	312	292	303	178	170	174
26	---	---	---	364	352	358	308	290	299	180	174	177
27	---	---	---	364	358	362	304	284	295	180	168	175
28	---	---	---	368	362	364	300	282	292	176	164	170
29	---	---	---	368	362	365	294	282	289	176	162	168
30	---	---	---	370	360	365	294	282	288	186	168	178
31	---	---	---	368	358	364	---	---	---	194	184	189
MONTH	402	310	386	384	336	358	390	282	343	292	162	227

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	202	184	189	170	160	166	178	170	174	278	258	267
2	214	176	191	172	162	168	178	170	174	284	270	278
3	186	174	179	174	168	172	180	170	175	294	272	284
4	186	174	180	176	164	168	184	172	178	300	274	290
5	188	178	183	170	164	168	188	178	184	320	198	247
6	186	172	179	172	162	169	198	182	189	300	282	289
7	182	170	177	174	166	170	204	188	196	286	248	262
8	180	174	178	176	166	171	208	194	202	250	234	241
9	188	174	181	178	168	173	214	200	207	244	234	239
10	188	174	181	180	170	174	218	206	212	246	234	241
11	198	186	191	182	170	176	220	214	216	248	236	243
12	200	190	194	184	170	176	222	212	217	248	236	243
13	202	190	196	180	170	175	220	208	214	250	246	248
14	204	192	198	182	168	176	216	210	212	252	248	250
15	200	184	190	182	170	176	216	208	213	254	248	251
16	192	178	184	180	170	176	222	214	217	256	244	251
17	186	174	180	182	170	177	224	216	221	256	248	254
18	184	174	178	182	172	178	226	218	222	258	246	254
19	184	176	179	182	170	176	226	218	221	264	248	256
20	186	172	178	178	168	172	222	208	213	270	8	84
21	184	172	177	170	158	163	214	204	209	16	10	14
22	186	174	179	164	154	159	216	208	212	18	4	11
23	186	174	179	164	152	158	224	210	217	18	2	10
24	184	176	181	164	152	158	224	214	219	16	2	10
25	186	174	179	166	154	160	224	218	221	18	2	10
26	182	170	176	166	158	162	226	218	222	18	4	10
27	178	168	172	170	158	165	232	222	225	18	6	11
28	174	164	169	174	164	168	234	224	230	20	2	11
29	172	164	169	174	168	172	240	228	235	20	2	11
30	172	164	168	176	166	172	252	238	245	362	10	264
31	---	---	---	176	172	174	262	248	254	---	---	---
MONTH	214	164	181	184	152	170	262	170	211	362	2	178
YEAR	472	2	281									

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15.0	10.5	7.0	.0	1.0	7.0	6.0	9.0	14.0	17.0	19.0	18.0
2	14.5	10.5	4.5	.0	2.0	7.0	7.0	9.5	13.0	16.5	20.0	18.0
3	14.0	10.5	3.0	.0	.5	5.5	5.0	9.5	14.0	17.0	19.5	17.5
4	20.0	9.0	3.0	1.0	.0	5.5	10.0	9.0	14.5	15.0	20.5	18.0
5	18.0	10.0	4.5	.5	1.0	7.0	6.0	10.0	14.5	16.0	20.0	17.5
6	19.0	9.5	.0	1.0	1.0	8.5	7.0	10.5	14.0	17.5	20.5	17.0
7	16.0	8.0	.0	1.5	2.0	9.5	8.0	11.5	15.5	17.0	20.5	17.0
8	16.0	7.5	.0	2.0	4.0	9.0	8.0	10.0	15.5	18.0	20.0	17.0
9	18.0	7.0	.5	.5	2.0	7.0	9.5	9.5	12.0	17.0	20.0	17.0
10	17.0	10.0	.0	1.5	1.0	3.0	6.5	7.5	12.0	17.0	20.0	18.0
11	18.5	8.5	.0	3.0	2.0	4.0	5.5	8.0	13.0	17.0	20.0	18.0
12	18.0	7.0	.0	3.0	6.0	9.0	4.5	9.5	15.0	16.5	19.5	16.0
13	15.5	6.5	.0	2.0	7.5	9.0	4.5	10.0	16.0	18.0	19.5	15.5
14	9.5	7.0	1.5	.0	7.0	8.0	6.0	10.5	16.5	18.0	20.0	16.0
15	10.0	6.0	2.0	2.5	8.0	9.5	8.5	12.0	16.0	17.5	19.0	13.5
16	16.5	8.5	.0	4.5	3.0	9.5	9.0	12.0	16.0	17.5	17.5	18.0
17	17.0	8.5	.5	4.0	3.0	5.0	8.5	13.0	16.0	18.0	18.0	15.0
18	16.0	5.0	2.5	5.5	7.5	3.5	10.0	11.5	14.0	18.0	17.0	16.0
19	15.5	8.0	5.0	3.0	3.5	4.0	9.0	13.0	15.0	17.5	18.0	15.0
20	14.5	7.5	3.0	1.5	5.0	5.0	8.0	13.0	14.0	18.0	16.0	15.5
21	13.0	4.5	3.0	1.0	4.5	5.5	8.5	10.5	15.0	19.0	16.5	18.5
22	11.0	6.5	3.0	3.0	4.0	4.0	9.0	12.0	15.5	19.0	17.0	14.0
23	10.0	6.0	2.0	1.5	2.0	9.5	10.0	14.0	15.5	18.5	17.5	15.0
24	10.0	7.0	1.0	.5	3.0	5.5	9.0	13.5	17.0	18.0	18.0	15.0
25	10.0	7.0	.5	1.0	7.0	5.5	9.0	14.0	16.0	19.0	17.5	15.0
26	8.0	4.5	3.0	2.0	5.5	10.0	10.0	14.0	16.0	20.0	20.0	15.0
27	7.5	6.5	3.0	.0	6.5	7.0	9.0	13.5	17.0	20.0	17.5	14.5
28	6.5	6.0	4.0	.0	8.0	6.5	9.0	14.0	16.0	21.5	18.0	14.0
29	7.0	5.0	4.0	.5	---	6.0	10.0	14.5	18.0	21.0	17.5	14.0
30	13.0	6.0	3.0	.0	---	5.5	9.5	14.0	17.0	19.5	18.5	14.0
31	10.0	---	2.5	.0	---	7.0	---	14.0	---	19.5	18.0	---
MEAN	13.5	7.5	2.0	1.5	4.0	6.5	8.0	11.5	15.0	18.0	18.5	16.0

WTR YR 1979 MEAN 10.5 MAX 21.5 MIN .0

TEMPERATURE, WATER (DEG. C), RECORDER MAXIMUM, MINIMUM AND MEAN WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	21.0	15.0	18.0				---	---	---	4.0	.5	2.5
2	21.0	14.5	18.0				---	---	---	2.0	.5	1.0
3	19.0	14.0	16.5				---	---	---	1.5	.5	.5
4	20.0	13.5	17.0				---	---	---	1.5	.5	1.0
5	18.0	12.0	15.0				---	---	---	3.0	1.0	2.0
6	19.0	11.5	15.0				---	---	---	4.5	1.5	2.0
7	17.0	11.5	14.0				---	---	---	4.5	1.0	2.5
8	---	---	---				---	---	---	2.0	.5	1.0
9	---	---	---				---	---	---	1.5	.5	.5
10	---	---	---				---	---	---	6.0	1.5	2.5
11	---	---	---				---	---	---	6.0	6.0	6.0
12	---	---	---				---	---	---	6.5	6.0	6.0
13	---	---	---				---	---	---	6.5	6.5	6.5
14	---	---	---				1.0	.5	1.0	---	---	---
15	---	---	---				2.5	.0	1.0	---	---	---
16	---	---	---				2.0	.0	1.0	---	---	---
17	---	---	---				.5	.0	.5	---	---	---
18	---	---	---				2.5	.5	2.0	---	---	---
19	---	---	---				5.0	2.5	3.5	---	---	---
20	---	---	---				3.5	1.5	2.5	---	---	---
21	---	---	---				2.5	.0	1.5	---	---	---
22	---	---	---				3.0	.0	1.5	---	---	---
23	---	---	---				3.0	.0	1.5	---	---	---
24	---	---	---				2.5	.0	1.5	---	---	---
25	---	---	---				3.0	.0	1.5	---	---	---
26	---	---	---				3.0	.0	1.5	---	---	---
27	---	---	---				3.0	.0	1.5	---	---	---
28	---	---	---				3.5	.5	2.0	---	---	---
29	---	---	---				4.5	2.0	3.0	---	---	---
30	---	---	---				5.0	3.0	3.5	---	---	---
31	---	---	---				4.0	3.0	3.5	---	---	---
MONTH	21.0	11.5	16.0				5.0	.0	2.0	6.5	.5	2.5

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

TEMPERATURE, WATER (DEG. C), RECORDER MAXIMUM, MINIMUM AND MEAN WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN FEBRUARY	MEAN	MAX	MIN MARCH	MEAN	MAX	MIN APRIL	MEAN	MAX	MIN MAY	MEAN
1	---	---	---	7.5	4.0	6.0	9.0	5.0	7.0	---	---	---
2	---	---	---	8.0	5.0	6.0	7.5	5.5	6.5	11.5	10.5	11.0
3	---	---	---	7.0	3.5	5.5	9.5	5.0	7.5	11.0	9.0	10.5
4	---	---	---	7.5	3.0	5.5	10.0	6.5	8.5	14.0	9.5	11.5
5	---	---	---	7.0	3.0	5.0	11.5	7.5	9.5	14.0	10.0	12.5
6	---	---	---	8.5	3.0	6.0	13.0	8.5	10.5	14.5	10.5	12.5
7	9.5	.5	2.0	9.5	4.0	7.5	14.0	8.5	11.0	13.5	11.0	12.5
8	4.0	.0	2.0	9.0	4.5	7.0	12.5	8.5	10.5	12.5	10.5	11.5
9	4.5	2.0	3.0	7.0	3.5	5.5	9.0	7.0	7.5	11.0	9.0	10.0
10	5.0	2.5	4.0	7.5	3.5	5.5	8.0	5.5	7.0	10.0	8.0	9.0
11	5.0	3.5	4.0	7.5	3.5	6.0	8.0	5.0	6.5	12.0	8.0	10.0
12	5.5	3.0	4.5	9.0	4.5	6.5	10.0	5.0	7.0	13.5	9.0	11.0
13	7.0	2.0	4.5	9.0	4.5	7.0	15.5	10.5	14.5	14.0	10.0	12.0
14	7.0	2.0	5.0	8.5	5.5	7.0	---	---	---	15.0	10.5	13.0
15	8.0	4.0	6.0	9.5	5.5	7.5	---	---	---	14.0	11.0	12.5
16	5.5	3.5	4.5	9.5	5.0	7.5	---	---	---	14.5	11.0	13.0
17	8.0	3.5	6.0	7.0	3.5	6.0	---	---	---	14.5	12.0	13.0
18	7.5	3.0	5.5	7.5	4.5	6.0	---	---	---	14.5	11.0	13.0
19	7.5	3.0	5.5	7.0	5.0	6.0	---	---	---	15.5	12.0	13.5
20	7.5	4.5	6.0	8.5	6.0	7.0	---	---	---	14.0	11.0	12.5
21	6.0	4.0	5.0	8.0	4.5	6.0	---	---	---	13.5	10.0	11.5
22	6.5	3.5	4.5	8.5	4.5	6.5	---	---	---	14.5	11.0	12.5
23	6.5	2.5	4.5	10.0	5.5	7.5	---	---	---	15.5	13.0	14.0
24	7.0	3.0	5.0	10.0	6.0	8.0	---	---	---	15.0	13.0	14.0
25	7.0	2.5	5.0	10.0	6.5	8.5	---	---	---	15.0	13.0	14.0
26	6.5	3.0	5.0	10.5	7.0	9.0	---	---	---	14.0	12.0	13.0
27	7.0	4.0	5.5	10.0	7.0	8.5	---	---	---	15.0	11.5	13.5
28	8.5	3.0	6.0	8.0	6.5	7.5	---	---	---	16.0	13.0	14.5
29	---	---	---	9.5	6.0	8.0	---	---	---	16.0	13.5	15.0
30	---	---	---	10.0	7.5	9.0	---	---	---	15.5	13.5	14.5
31	---	---	---	9.5	5.5	7.5	---	---	---	15.5	13.0	14.5
MONTH	9.5	.0	4.5	10.5	3.0	7.0	15.5	5.0	8.5	16.0	8.0	12.5

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	15.5	13.0	14.0	19.0	16.5	17.5	23.5	18.5	21.0	23.5	18.0	20.5
2	15.0	12.5	13.5	20.0	16.5	18.0	23.5	19.5	21.5	22.0	17.5	20.0
3	15.5	13.0	14.5	18.0	16.5	17.0	24.5	19.0	21.5	21.5	17.0	19.5
4	15.5	13.5	14.5	18.5	15.5	17.0	24.0	19.5	22.0	23.5	17.5	20.5
5	15.5	13.5	14.5	19.0	16.0	17.5	24.5	19.5	22.0	23.0	17.0	20.5
6	17.0	13.0	15.0	19.0	16.5	17.5	24.5	20.0	22.5	20.5	15.5	18.5
7	16.5	14.5	15.5	19.0	16.5	17.5	25.0	20.0	22.5	20.0	15.5	18.0
8	15.5	13.0	14.5	20.5	16.5	18.5	24.5	20.0	22.0	20.0	15.5	18.0
9	14.0	11.5	12.5	20.5	17.0	19.0	24.5	20.0	22.0	20.5	16.5	19.0
10	15.0	11.0	13.0	21.0	17.0	19.0	23.0	20.0	21.5	20.5	16.5	18.5
11	16.5	12.5	14.5	21.0	17.5	19.0	23.0	19.5	21.5	19.5	16.5	18.0
12	18.0	14.0	16.0	21.0	17.0	19.0	23.5	19.0	21.0	20.0	15.5	17.5
13	18.5	15.5	17.0	21.5	18.0	19.5	22.5	19.0	20.5	19.0	15.5	17.0
14	18.0	16.0	17.0	20.5	18.0	19.5	21.0	19.0	20.0	17.0	13.0	15.0
15	18.0	15.5	16.5	20.5	17.5	19.0	19.5	17.5	18.5	16.5	12.5	14.0
16	17.5	15.5	16.5	20.5	17.5	19.0	20.5	17.5	19.0	18.0	13.5	16.0
17	17.5	14.5	16.0	21.0	18.0	19.5	20.0	17.5	19.0	18.0	15.0	16.5
18	17.0	14.0	15.5	22.0	18.0	19.5	20.5	17.0	19.0	19.0	15.5	17.0
19	16.5	13.5	15.0	22.0	18.0	20.0	19.5	17.0	18.5	19.5	14.5	17.0
20	16.5	13.0	15.0	22.0	18.0	20.0	20.5	15.5	18.0	18.5	15.0	16.5
21	17.5	14.0	15.5	22.0	18.5	20.5	21.0	16.5	18.5	18.5	15.5	17.0
22	18.5	15.5	17.0	22.5	19.0	21.0	21.5	16.5	19.0	20.0	14.5	17.5
23	18.0	15.5	17.0	23.0	18.5	20.5	21.5	17.5	19.5	20.5	15.0	18.0
24	19.0	16.0	17.5	23.0	18.5	20.5	22.5	17.5	20.0	20.5	15.0	18.0
25	18.5	15.5	17.0	23.5	19.0	21.0	22.0	17.5	19.5	20.5	15.0	18.0
26	19.0	15.5	17.5	24.5	19.5	22.0	22.0	18.5	20.0	19.5	15.0	17.5
27	19.5	16.0	17.5	24.0	20.0	22.0	21.5	17.5	19.5	17.5	14.0	16.0
28	19.5	16.0	18.0	23.5	21.0	22.0	23.0	18.0	20.5	19.5	14.0	16.5
29	19.5	17.5	18.5	22.0	20.5	21.5	22.5	17.5	20.0	19.5	14.0	17.0
30	18.5	17.0	17.5	24.0	19.0	21.5	23.0	18.5	20.5	18.0	14.0	16.5
31	---	---	---	22.0	19.0	20.5	23.0	18.0	20.5	---	---	---
MONTH	19.5	11.0	16.0	24.5	15.5	19.5	25.0	15.5	20.5	23.5	12.5	17.5
YEAR	25.0	.0	12.5									

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

RIO GRANDE BASIN

08313000 RIO GRANDE AT OTOWI BRIDGE, NEAR SAN ILDEFONSO, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	300	224	310	538	344	592	301	449	382	564	478	916
2	290	218	255	422	461	712	140	164	372	590	672	1350
3	1010	769	7700	28800	908	1490	264	320	295	489	699	1580
4	239	181	4950	11200	930	1320	381	518	250	383	440	924
5	198	145	1650	3020	594	880	477	689	434	618	460	923
6	202	144	1130	1950	340	499	339	540	377	559	391	803
7	214	149	935	1580	101	136	348	577	425	649	360	816
8	244	170	765	1350	116	141	317	473	735	1120	1990	6860
9	673	480	982	1790	108	87	529	714	540	828	3260	17300
10	375	277	625	1060	286	270	239	333	410	659	2970	14000
11	250	187	701	1180	850	1380	282	414	350	542	1820	8110
12	130	97	860	1510	940	1900	304	478	260	384	1490	6030
13	80	62	745	1390	1350	3350	142	223	247	376	1870	7570
14	70	56	774	1460	1640	4210	235	333	310	531	1820	9220
15	84	66	719	1360	1430	3940	205	308	473	914	1970	9950
16	59	46	533	1010	1420	3540	167	263	1220	2650	1870	9620
17	62	47	442	834	1070	2350	203	320	637	1330	4040	36600
18	56	42	490	840	922	2110	405	788	455	876	2590	24700
19	170	168	559	906	1090	3030	760	1670	783	1440	1930	9800
20	362	473	422	678	1030	3000	453	790	954	1920	1350	4880
21	383	600	342	540	810	2030	682	1050	583	1220	1270	4900
22	835	1500	287	446	600	1090	452	707	385	755	1300	5050
23	455	881	335	529	950	1520	319	506	690	1310	1130	4210
24	468	957	430	708	610	919	508	727	401	781	1000	3750
25	453	954	785	2000	549	815	285	434	427	824	1190	6550
26	915	1970	800	1880	468	692	270	416	325	594	1190	6880
27	685	1410	555	1160	695	1010	250	371	394	726	1570	9240
28	1330	2570	444	861	320	506	267	370	537	1090	1500	9520
29	565	1080	419	735	325	534	750	1180	---	---	1480	10000
30	380	709	395	694	343	596	606	877	---	---	1910	13300
31	330	588	---	---	370	626	384	566	---	---	1480	8910
TOTAL	---	17220	---	72431	---	45275	---	17568	---	24722	---	254262

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1360	6650	1040	14700	1280	33800	543	8050	339	1370	54	78
2	1340	7710	1240	17600	1220	32400	610	8860	285	1140	58	75
3	1400	6770	1010	14200	1050	26500	450	6430	285	1050	45	55
4	975	4130	1060	14700	950	23500	494	7000	169	584	37	44
5	1010	4470	1030	14600	1090	24600	386	5300	140	454	31	35
6	1150	5190	1080	15800	960	21300	1070	13900	170	519	1310	5250
7	973	3390	1160	17900	1000	21700	1500	19200	286	819	832	3440
8	1600	9200	1140	19000	2760	63300	900	11200	145	391	680	2520
9	1300	8140	1190	21000	3410	106000	480	5820	260	686	483	1500
10	1600	12100	1140	19500	2050	57600	558	6540	1240	3480	735	2260
11	1740	15000	988	14800	1560	42500	491	5870	420	1210	635	2210
12	1270	10800	1150	15200	1250	33700	380	4440	225	626	789	2710
13	1020	8540	746	9230	1220	29500	373	4030	201	581	985	2980
14	1260	9830	748	8870	1160	25700	533	5510	1470	5040	394	1120
15	1330	6610	780	9370	1450	31200	618	6120	4020	18900	322	833
16	1530	11400	660	8040	1520	33600	440	4170	4270	23100	319	818
17	1780	18000	770	10900	1010	23000	345	2930	3410	13800	390	1040
18	2150	25500	888	14100	948	21500	535	4390	603	2250	482	1420
19	2060	25900	909	14800	952	20500	539	4600	410	1580	238	395
20	1600	20300	880	15000	875	17200	470	3970	902	3480	87	89
21	1310	16700	1600	32800	872	15400	313	2630	280	975	53	46
22	1290	16400	1510	34100	617	10100	466	3850	203	641	31	28
23	1470	19300	1650	34200	510	7960	408	3230	180	539	23	20
24	1580	22300	960	21100	582	9000	336	2490	159	455	16	13
25	1590	23200	1150	24900	777	12400	325	2300	160	436	22	17
26	1560	23600	1310	31300	620	9810	309	1790	220	565	25	19
27	1380	20500	1710	43300	560	8890	332	1690	760	1910	20	15
28	1380	19600	1790	46200	702	11000	421	1980	170	397	24	19
29	1240	17500	1450	38100	564	8600	337	1580	104	212	23	18
30	1200	16400	1430	37900	960	14500	280	1250	95	174	726	1940
31	---	---	1450	38600	---	---	282	1190	65	105	---	---
TOTAL	---	415130	---	671810	---	796760	---	162310	---	87469	---	31007

TOTAL LOAD FOR YEAR: 2595964 TONS.

08313350 RITO DE LOS FRIJOLES IN BANDELIER NATIONAL MONUMENT, NM

LOCATION.--Lat 35°47'08", long 106°16'50", Sandoval County, Hydrologic Unit 13020201, in Bandelier National Monument, 1,600 ft (490 m) southeast of Ceremonial Cave, 4,000 ft (1,200 m) upstream from Monument headquarters, 6 mi (10 km) south of Los Alamos, 19 mi (31 km) northwest of Santa Fe, and at mile 3.0 (4.8 km).

DRAINAGE AREA.--17.5 mi² (45.3 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1963 to September 1969, July 1977 to current year.

GAGE.--Water-stage recorder and Parshall flume. Altitude of gage is 6,140 ft (1,870 m), from topographic map.

REMARKS.--Water-discharge records poor. No diversions above station. The La Mesa forest fire which occurred during mid-June 1977 burned about 40% of the forest cover of this watershed and evidently changed the flow characteristics.

AVERAGE DISCHARGE.--8 years (water years 1964-69, 1978-79), 1.56 ft³/s (0.044 m³/s), 1,130 acre-ft/yr (1.39 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,030 ft³/s (85.8 m³/s) July 21, 1978, gage height, 6.34 ft (1.932 m), from rating curve extended above 20 ft³/s (0.57 m³/s) on basis of slope-area measurements at gage heights 3.88 ft (1.183 m), 5.02 ft (1.530 m), and 6.34 ft (1.932 m); no flow Feb. 6, 1968, result of freezup.

The maximum discharge prior to the forest fire of June 1977 was 19 ft³/s (0.54 m³/s) June 18, 1965, gage height, 1.49 ft (0.454 m), from rating curve extended above 7.6 ft³/s (0.22 m³/s) on basis of theoretical rating.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4.0 ft³/s (0.11 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 3	2030	132	3.74	3.02	0.920	Apr. 18	2230	30	0.85	1.92	0.585
Nov. 11	0300	303	8.58	3.67	1.119	May 26	1530	15	.42	1.30	.396
Nov. 12	1400	296	8.38	3.65	1.113	June 1	2000	114	3.23	2.92	.890
Nov. 25	0300	343	9.71	3.78	1.152	June 2	1930	140	3.96	3.06	.933
Mar. 8	1730	15	.42	1.26	.384	June 3	1500	a*354	10.0	3.81	1.161
Mar. 21	1400	15	.42	1.20	.366	Aug. 15	0400	30	.85	1.96	.597
Apr. 10	1200	11	.31	1.05	.320						

a From rating curve extended above 20 ft³/s (0.57 m³/s) as explained above.

Minimum discharge, 0.06 ft³/s (0.002 m³/s) Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.55	.94	3.7	.90	.90	1.9	6.9	11	17	2.3	.58	.42
2	.55	.94	3.5	.80	1.0	2.1	6.5	9.8	25	2.2	.64	.42
3	.53	16	3.4	.80	.90	2.1	6.0	9.4	38	2.1	.64	.42
4	.37	5.0	3.2	.90	.90	2.0	5.5	8.4	8.2	2.0	.64	.42
5	.32	4.0	3.1	.90	.85	2.0	5.2	7.8	8.4	1.8	.70	.32
6	.37	3.0	2.5	.90	.85	2.1	5.4	7.3	7.3	1.7	.70	.28
7	.42	2.8	2.0	1.0	.90	3.1	6.3	7.1	6.5	1.5	.76	.28
8	.58	2.7	1.5	.90	.90	6.2	7.8	7.1	7.9	1.3	.76	.28
9	.76	2.6	1.0	.90	1.0	6.0	10	7.5	8.6	1.2	.76	.28
10	.76	2.5	1.0	1.0	1.0	4.9	11	6.7	8.2	1.1	.76	.28
11	.64	40	1.1	1.0	1.1	4.8	10	6.0	7.8	1.0	.76	.28
12	.58	25	1.2	1.0	1.2	5.6	9.0	5.6	7.2	1.0	.76	.28
13	.53	4.8	1.3	1.0	1.3	6.3	8.1	4.8	6.9	1.0	.76	.28
14	.20	4.0	1.3	.90	1.4	6.4	7.2	4.5	6.7	1.0	1.1	.37
15	.09	4.9	1.3	.90	1.5	8.1	7.2	4.4	6.5	1.0	4.4	.47
16	.14	3.4	1.3	.90	1.5	7.9	10	4.3	6.3	1.1	1.4	.47
17	.20	3.1	1.3	1.0	1.4	7.8	14	4.2	6.0	1.1	1.2	.42
18	.28	2.8	1.3	1.0	1.3	7.6	21	4.0	5.5	1.1	1.4	.37
19	.58	2.6	1.5	.90	1.4	7.2	26	3.7	5.0	1.3	1.1	.32
20	.81	2.5	1.4	.80	1.5	8.4	22	3.9	4.5	1.0	.94	.37
21	1.0	2.5	1.3	.70	1.7	13	19	4.0	4.3	1.0	.88	.58
22	.76	2.5	1.2	.70	1.8	8.8	18	3.9	4.0	1.0	.76	.58
23	.17	2.6	1.2	.65	1.8	7.5	17	4.0	3.8	.94	.70	.42
24	.17	21	1.2	.65	1.7	7.3	19	4.3	3.5	.94	.64	.37
25	.20	63	1.2	.75	1.6	7.3	18	4.4	3.3	.94	.64	.32
26	.53	8.1	1.2	.90	1.7	7.6	17	7.6	3.1	.94	.58	.32
27	.76	6.7	1.2	.85	1.8	7.9	15	7.5	3.0	.94	.81	.37
28	.88	5.2	1.2	.80	1.8	7.9	13	7.3	2.8	.88	.64	.42
29	.88	4.5	1.2	.90	---	7.9	12	6.8	2.6	.88	.53	.42
30	.88	4.0	1.3	.85	---	7.8	12	6.3	2.4	.81	.47	.37
31	1.0	---	1.0	.85	---	7.5	---	5.6	---	.70	.47	---
TOTAL	16.49	253.68	51.1	27.00	36.70	193.0	365.1	189.2	230.3	37.77	27.88	11.20
MEAN	.53	8.46	1.65	.87	1.31	6.23	12.2	6.10	7.68	1.22	.90	.37
MAX	1.0	63	3.7	1.0	1.8	13	26	11	38	2.3	4.4	.58
MIN	.09	.94	1.0	.65	.85	1.9	5.2	3.7	2.4	.70	.47	.28
AC-FT	33	503	101	54	73	383	724	375	457	75	55	22

CAL YR 1978 TOTAL 769.45 MEAN 2.11 MAX 80 MIN .09 AC-FT 1530
WTR YR 1979 TOTAL 1439.42 MEAN 3.94 MAX 63 MIN .09 AC-FT 2860

NOTE.--No gage-height record Dec. 6 to Feb. 19.

RIO GRANDE BASIN

08313350 RITO DE LOS FRIJOLES IN BANDELIER NATIONAL MONUMENT, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV							
06...	1400	2.4	137	16.0	1330	8.6	3
21...	1600	2.4	136	15.0	5840	38	1
FEB							
12...	1345	1.2	128	2.0	146	.47	—
12...	1445	1.2	140	2.0	51	.17	—
12...	1515	1.2	133	3.0	1080	3.5	—
APR							
14...	0900	7.2	115	4.5	192	3.7	—
MAY							
17...	1200	4.0	103	10.0	8	.09	—
21...	1500	3.7	101	13.0	10	.10	—
25...	1545	4.4	94	12.0	41	.49	—
29...	0900	6.9	101	10.0	44	.82	—
JUN							
04...	1100	8.1	104	10.5	162	3.5	—
12...	0900	7.3	109	9.5	55	1.1	—
15...	1430	6.5	107	15.0	67	1.2	—
JUL							
03...	1429	2.1	116	14.5	13	.07	—
06...	0900	1.7	123	13.0	12	.06	—
09...	0900	1.2	120	13.0	13	.04	—
24...	0900	.94	120	12.0	6	.02	—
27...	0900	.88	120	15.5	5	.01	—
AUG							
01...	0900	.58	120	14.5	3	.00	—
10...	1400	E.48	127	—	3	.00	—
14...	1100	1.1	119	16.0	3	.01	—
24...	1100	.76	124	14.5	2	.00	—

08315500 MCCLURE RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'18", long 105°50'06", in NE¼SW¼ sec.24, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, on outlet tower at McClure Dam on Santa Fe River, 2.1 mi (3.4 km) upstream from Nichols Reservoir, 5.8 mi (9.3 km) east of Santa Fe, and at mile 37.1 (59.7 km), revised.

DRAINAGE AREA.--17.4 mi² (45.1 km²).

PERIOD OF RECORD.--September 1929, July to October 1930, April 1931 to June 1946, September 1947 to current year. Prior to October 1947, published in WSP 1312. Prior to October 1965, monthend contents only.

GAGE.--Water-stage recorder. Altitude of gage is 7,788 ft (2,374 m), from topographic map. Prior to Oct. 1, 1947, nonrecording gages at same site and various datums all referred to the Public Service Co. of New Mexico assumed datum, 165.9 ft (50.57 m) lower.

REMARKS.--Reservoir is formed by earthfill dam, completed in 1926, capacity, 561 acre-ft (692,000 m³), raised 3 ft (0.9 m) in 1935, capacity, 650 acre-ft (801,000 m³), and raised 36.5 ft (11.13 m) more in 1947, capacity, 2,615 acre-ft (3.22 hm³) at gage height 96.6 ft (29.44 m), crest of concrete spillway. Between October 1947 and May 1953 varying amounts of sandbag bulkheads were placed on crest of spillway to increase capacity. Between May 1953 and December 1971 spillway was equipped with radial gates that opened automatically thereby increasing capacity to over 3,000 acre-ft (3.70 hm³). Radial gates were removed during 1972, capacity, 2,615 acre-ft (3.22 hm³). No dead storage. Water is for municipal use of city of Santa Fe.

COOPERATION.--Supplementary stage readings and capacity table furnished by Public Service Co. of New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,140 acre-ft (3.87 hm³) June 25, 1960, gage height, 103.7 ft (31.61 m); no contents Jan. 25 to May 8, 1951.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,690 acre-ft (3.32 hm³) June 8-9; maximum gage height, 97.7 ft (29.78 m) June 9; minimum contents, 1,140 acre-ft (1.41 hm³) Jan. 17, gage height, 72.0 ft (21.95 m).

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Public Service Co. of New Mexico in 1947)

70	1,050	90	2,160
75	1,280	95	2,500
80	1,550	100	2,860
85	1,840		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1470	1280	1540	1320	1180	1310	1380	2650	2660	2640	2630	2170
2	1460	1280	1540	1310	1180	1300	1380	2650	2660	2640	2630	2160
3	1450	1290	1550	1290	1190	1300	1380	2640	2660	2640	2620	2150
4	1440	1300	1550	1280	1190	1300	1370	2640	2660	2640	2620	2130
5	1430	1300	1560	1260	1190	1290	1370	2640	2660	2640	2620	2110
6	1420	1310	1560	1250	1200	1280	1370	2640	2660	2640	2620	2080
7	1410	1320	1560	1240	1200	1280	1370	2640	2660	2630	2620	2060
8	1400	1320	1560	1230	1200	1270	1380	2640	2690	2630	2620	2030
9	1390	1320	1570	1210	1200	1270	1410	2640	2690	2630	2620	2000
10	1380	1320	1570	1200	1210	1280	1450	2640	2680	2630	2600	1980
11	1370	1320	1570	1190	1210	1280	1490	2640	2670	2630	2560	1950
12	1360	1340	1580	1180	1220	1290	1520	2640	2660	2630	2520	1920
13	1350	1340	1580	1170	1230	1300	1550	2630	2660	2630	2490	1900
14	1340	1350	1590	1160	1240	1300	1590	2630	2660	2630	2450	1870
15	1320	1360	1580	1150	1250	1320	1640	2640	2660	2630	2430	1840
16	1320	1360	1570	1150	1260	1320	1720	2640	2660	2630	2400	1820
17	1310	1360	1570	1140	1280	1340	1830	2640	2660	2630	2380	1800
18	1300	1370	1560	1150	1290	1340	1970	2640	2660	2630	2350	1770
19	1290	1370	1550	1150	1300	1350	2100	2650	2650	2630	2320	1740
20	1280	1370	1540	1150	1320	1350	2210	2660	2650	2630	2290	1720
21	1280	1370	1510	1150	1330	1360	2300	2650	2650	2630	2270	1700
22	1270	1380	1500	1160	1340	1360	2400	2650	2650	2630	2260	1680
23	1270	1380	1480	1160	1340	1360	2500	2650	2650	2630	2250	1660
24	1270	1390	1460	1160	1330	1360	2610	2650	2650	2630	2250	1630
25	1280	1440	1440	1160	1330	1360	2660	2650	2650	2630	2240	1620
26	1280	1460	1420	1170	1320	1360	2660	2660	2650	2630	2230	1600
27	1280	1480	1400	1170	1320	1360	2660	2660	2640	2630	2220	1580
28	1280	1500	1390	1170	1320	1370	2650	2660	2640	2630	2210	1560
29	1280	1510	1370	1170	---	1370	2650	2660	2640	2630	2200	1540
30	1280	1520	1360	1180	---	1370	2650	2660	2640	2630	2190	1520
31	1280	---	1340	1180	---	1380	---	2660	---	2630	2190	---
MAX	1470	1520	1590	1320	1340	1380	2660	2660	2690	2640	2630	2170
MIN	1270	1280	1340	1140	1180	1270	1370	2630	2640	2630	2190	1520
(†)	74.8	79.5	-	-	-	76.8	97.1	97.3	97.0	96.8	90.4	79.5
(‡)	-200	+240	-180	-160	+140	+60	+1270	+10	-20	-10	-440	-670

CAL YR 1978 MAX 2640 MIN 1270 ‡ -660
WTR YR 1979 MAX 2690 MIN 1140 ‡ +40

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
NOTE.--Monthend contents estimated Dec. 31, Jan. 31, Feb. 28.

08316000 SANTA FE RIVER NEAR SANTA FE, NM

LOCATION.--Lat 35°41'12", long 105°50'35", in NE¼SE¼ sec.23, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, on left bank 0.4 mi (0.6 km) downstream from McClure Dam, 5.3 mi (8.5 km) east of Santa Fe, and at mile 36.6 (58.9 km), revised.

DRAINAGE AREA.--18.2 mi² (47.1 km²).

PERIOD OF RECORD.--June 1910, January 1913 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1953, published as Santa Fe Creek near Santa Fe.

REVISED RECORDS.--WSP 1512: 1933, 1936-37(M), 1942, drainage area. WSP 1732: 1923, 1925. WDR NM-75-1: 1927.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,718 ft (2,352 m), from topographic map. See WSP 1312 for history of changes prior to Oct. 1, 1947.

REMARKS.--Records good. Flow regulated by McClure Reservoir (station 08315500), completed in 1926, raised in 1935 and again in 1947. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--66 years, 7.93 ft³/s (0.225 m³/s), 5,750 acre-ft/yr (7.09 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,500 ft³/s (42.5 m³/s) Aug. 14, 1921, gage height, 5.17 ft (1.576 m), site and datum then in use, from rating curve extended above 150 ft³/s (4.2 m³/s); minimum, 0.08 ft³/s (0.002 m³/s) July 31, Aug. 1, 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks which probably exceeded 1,000 ft³/s (28 m³/s) occurred Aug. 19, 1872, and Sept. 29 or 30, 1904. Without regulation the flood of Sept. 23, 1929, might have exceeded 1,500 ft³/s (42 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 307 ft³/s (8.69 m³/s) June 9, gage height, 4.14 ft (1.262 m), from rating extended above 88 ft³/s (2.49 m³/s); minimum, 0.51 ft³/s (0.014 m³/s) Jan. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.2	.80	.86	9.4	.85	8.5	8.8	38	76	23	3.5	8.0
2	6.1	.78	.86	9.2	.85	8.5	8.8	37	75	22	3.5	8.0
3	6.1	.86	.86	9.0	.85	8.4	8.8	36	66	21	2.9	8.0
4	6.1	.87	.86	8.8	.85	8.2	8.8	32	64	20	2.8	10
5	6.1	.86	.78	8.6	.85	8.2	8.8	28	79	19	2.9	12
6	5.9	.83	.78	8.4	.90	8.2	8.8	30	78	17	2.7	13
7	5.8	.78	.78	8.2	.90	8.1	8.8	37	82	16	2.6	12
8	5.8	.78	.75	8.1	.90	8.0	9.0	43	120	15	2.5	14
9	5.8	.78	.75	7.9	.90	8.2	9.0	47	134	14	3.6	14
10	5.7	.78	.79	7.7	.90	8.2	5.0	40	73	12	14	14
11	5.6	.83	.79	7.7	.90	8.2	1.4	32	49	11	21	13
12	5.6	.86	.78	7.6	.90	8.3	1.4	28	36	10	21	15
13	5.6	.86	.78	7.3	.92	8.5	1.5	24	32	9.6	20	15
14	5.6	.80	2.9	7.3	.99	8.5	1.6	23	31	9.1	20	14
15	5.3	.78	5.1	7.0	1.2	8.5	1.8	26	30	8.8	20	14
16	5.3	.78	5.1	4.4	1.2	8.8	1.9	30	29	8.5	20	14
17	5.3	.78	5.1	.90	1.2	8.8	1.9	39	28	13	20	14
18	5.2	.78	5.1	.87	1.1	8.8	1.9	39	27	14	20	14
19	5.1	.78	7.9	.86	1.1	8.8	1.8	45	26	11	19	14
20	5.1	.78	10	.86	1.1	8.9	1.6	51	25	9.0	19	13
21	5.1	.78	11	.86	1.1	8.9	1.6	53	24	7.7	14	13
22	5.1	.78	11	.86	3.1	8.9	1.6	49	23	7.2	8.3	13
23	3.2	.78	11	.86	7.5	8.8	1.6	51	22	6.6	8.3	13
24	.87	.85	11	.86	8.8	8.8	1.3	55	21	6.1	8.2	10
25	.86	1.3	10	.86	8.8	8.8	33	64	20	5.6	8.2	9.6
26	.86	1.1	10	.86	8.6	8.8	55	78	19	5.4	8.2	10
27	.85	.98	10	.86	8.5	8.8	50	100	18	5.0	8.1	10
28	.79	.94	10	.86	8.5	8.8	45	94	18	4.8	8.1	10
29	.78	.86	9.9	.86	---	8.8	45	85	25	4.8	8.0	9.9
30	.78	.86	9.8	.85	---	8.8	43	83	24	4.5	8.0	9.7
31	.78	---	9.5	.85	---	8.8	---	79	---	4.0	8.0	---
TOTAL	133.27	25.38	164.82	139.53	74.26	265.6	378.5	1496	1374	344.7	336.4	361.2
MEAN	4.30	.85	5.32	4.50	2.65	8.57	12.6	48.3	45.8	11.1	10.9	12.0
MAX	6.2	1.3	11	9.4	8.8	8.9	55	100	134	23	21	15
MIN	.78	.78	.75	.85	.85	8.0	1.3	23	18	4.0	2.5	8.0
AC-FT	264	50	327	277	147	527	751	2970	2730	684	667	716

CAL YR 1978 TOTAL 2323.37 MEAN 6.37 MAX 26 MIN .75 AC-FT 4610
WTR YR 1979 TOTAL 5093.66 MEAN 14.0 MAX 134 MIN .75 AC-FT 10100

08316500 NICHOLS RESERVOIR NEAR SANTA FE, NM

LOCATION.--Lat 35°41'24", long 105°52'46", in SE¼NE¼ sec.21, T.17 N., R.10 E., Santa Fe County, Hydrologic Unit 13020201, in Santa Fe National Forest, on outlet tower at Nichols Dam on Santa Fe River, 0.6 mi (1.0 km) east of Twomile Reservoir, 3.3 mi (5.3 km) east of Santa Fe, and at mile 34.4 (55.3 km), revised.

DRAINAGE AREA.--22.8 mi^2 (59.1 km^2).

PERIOD OF RECORD.--March 1943 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is 7,313.2 ft (2,229.06 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam. No contents prior to Mar. 16, 1943. Capacity, 685 acre-ft (845,000 m^3) between gage heights 121.2 ft (36.94 m), bottom of lower operational gate and 167.0 ft (50.90 m), crest of spillway. Dead storage, 14 acre-ft (17,300 m^3). Water is for municipal use of city of Santa Fe.

COOPERATION.--Supplementary stage readings and survey to compute capacity table furnished by Public Service Co. of New Mexico.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 836 acre-ft (1.03 hm^3) June 8, 1952, gage height, 171.8 ft (52.36 m); minimum, 16 acre-ft (19,700 m^3) Feb. 11 to Mar. 10, 1944, Feb. 1-19, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 725 acre-ft (894,000 m^3) June 9, gage height, 168.3 ft (51.30 m); minimum, about 145 acre-ft (179,000 m^3) Dec. 19, gage height about 140.5 ft (42.82 m).

Capacity table (gage height, in feet, and contents, in acre-feet)
(Based on survey by Public Service Co. of New Mexico in 1943)

140	139	160	491
150	279	170	776

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	358	292	283	208	306	335	555	704	713	698	444	396
2	362	292	283	219	304	340	561	704	713	698	419	384
3	363	294	285	228	304	344	569	704	713	698	394	373
4	367	294	283	234	302	350	577	704	713	698	369	363
5	365	294	279	242	296	354	582	701	713	698	346	360
6	362	294	273	248	292	360	585	701	713	695	321	356
7	362	288	265	257	288	363	590	701	713	695	294	354
8	362	285	253	265	285	367	595	704	722	695	268	352
9	362	283	242	273	281	371	609	704	725	692	242	352
10	363	279	231	283	277	377	625	704	719	688	233	348
11	362	281	219	292	274	384	628	704	716	685	251	346
12	352	279	206	304	271	391	620	701	713	676	271	350
13	348	276	197	313	271	398	614	701	713	667	294	350
14	342	271	187	319	273	407	603	701	710	655	317	356
15	335	270	177	321	274	414	601	701	710	643	348	365
16	329	270	167	321	279	424	601	704	710	631	380	373
17	321	268	158	321	285	433	603	704	707	625	405	382
18	315	265	150	321	288	440	606	707	707	637	426	389
19	310	265	147	323	294	447	606	707	704	640	447	398
20	310	263	158	323	298	456	603	710	704	643	465	405
21	310	263	165	323	300	468	595	710	704	640	477	412
22	310	263	168	321	298	477	587	710	701	634	472	419
23	308	259	169	319	302	489	577	707	701	622	468	424
24	300	259	165	317	308	491	558	707	701	609	463	426
25	296	268	160	315	312	502	603	710	701	590	456	426
26	294	273	160	313	317	507	695	713	701	571	452	426
27	296	276	167	312	323	515	707	716	701	552	444	431
28	294	277	175	310	329	520	704	716	701	531	435	438
29	294	279	183	308	---	528	704	716	701	510	428	444
30	292	281	190	306	---	536	704	716	701	491	419	449
31	292	---	198	306	---	544	---	713	---	468	407	---
MAX	367	294	285	323	329	544	707	716	725	698	477	449
MIN	292	259	147	208	271	335	555	701	701	468	233	346
(†)	150.7	150.1	-	-	152.6	162.0	167.6	167.9	167.5	159.0	156.4	158.2
(‡)	-62	-11	-83	+108	+23	+215	+160	+9	-12	-233	-61	+42

CAL YR 1978 MAX 431 MIN 87 ‡ +83
WTR YR 1979 MAX 725 MIN 147 ‡ +95

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
NOTE.--Monthend contents estimated Dec. 31, Jan. 31. No gage-height record Dec. 24 to Feb. 12.

08317200 SANTA FE RIVER ABOVE COCHITI LAKE, NM

LOCATION.--Lat 35°32'49", long 106°13'41", in NW¼ sec.8, T.15 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, in Mesita de Juana Lopez Grant, on right bank at foot of La Bajada Hill, 5.0 mi (8.0 km) upstream from Cochiti Dam, 6.3 mi (10.1 km) east of Peña Blanca, and at mile 7.9 (12.7 km), revised.

DRAINAGE AREA.--231 mi² (598 km²).

PERIOD OF RECORD.--March 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,505 ft (1,678 m), from topographic map.

REMARKS.--Records good except those for January and February, which are fair. Surface and ground-water diversions and returns for municipal supply of city of Santa Fe in upper part of basin. Diversions for irrigation of about 400 acres (1.6 km²) above station. Several observations of water temperature were made during the year. See tabulation below for the results of discharge measurements made during year at point adjacent to gage of an unnamed ditch on right bank which diverts water 0.4 mi (0.6 km) upstream and bypasses gage; ditch flow not included in record.

AVERAGE DISCHARGE.--9 years, 8.81 ft³/s (0.249 m³/s), 6,380 acre-ft/yr (7.87 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,400 ft³/s (323 m³/s) July 26, 1971, gage height, 9.58 ft (2.920 m), from rating curve extended above 160 ft³/s (4.5 m³/s) on basis of slope-area measurements at gage heights 5.69 ft (1.734 m) and 9.58 ft (2.920 m); no flow July 16-18, 1971.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft³/s (8.5 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 18	1700	330	9.35	2.75	0.838	June 8	1545	a*1880	53.2	4.85	1.478
May 24	2030	642	18.2	3.39	1.033	July 17	0145	500	14.2	3.14	.957

a From rating curve extended above 160 ft³/s (4.5 m³/s) as explained above.

Minimum discharge, 0.70 ft³/s (0.19 m³/s) July 16.

DISCHARGE MEASUREMENTS, IN CUBIC FEET PER SECOND, OF DITCH, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
Oct. 26	0.50	Mar. 13	0	May 29	e0.05	July 30	0.90
Nov. 21	0	Apr. 12	0	June 6	e .10	Aug. 9	.56
Dec. 18	0	Apr. 19	0	June 11	.44	Aug. 17	.01
Jan. 15	0	May 2	.65	June 28	.46	Aug. 28	.07
Feb. 14	0	May 9	.86	July 5	.02	Sept. 24	.26

e Estimated.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	4.7	7.6	7.7	6.0	8.3	10	29	75	15	1.5	2.7
2	4.4	5.4	8.0	4.5	7.0	8.3	10	26	88	15	1.3	2.4
3	3.2	16	7.5	6.8	7.5	8.2	10	31	65	12	1.4	2.6
4	3.4	32	6.5	8.1	7.0	8.1	10	30	59	12	1.2	2.3
5	4.4	8.0	8.4	8.6	6.0	8.1	9.1	27	68	12	1.7	2.4
6	4.4	5.8	7.5	10	6.5	8.0	9.0	22	72	11	1.3	2.1
7	4.0	6.5	6.5	9.2	7.0	7.7	8.9	24	68	6.6	1.4	2.1
8	3.7	6.5	6.0	9.0	7.5	7.1	9.3	24	387	6.8	1.3	2.2
9	3.5	6.8	5.0	8.3	8.0	7.7	9.8	34	204	4.4	1.9	2.3
10	3.2	7.4	6.7	8.6	9.0	7.8	13	33	158	3.3	8.5	2.2
11	3.9	8.9	6.8	8.6	10	8.0	11	28	124	1.9	3.6	2.2
12	3.4	9.9	6.4	9.3	11	7.8	10	22	98	3.3	3.9	2.1
13	3.5	8.6	7.7	9.1	12	7.7	10	19	85	3.4	3.6	2.4
14	3.7	8.3	7.0	8.8	15	7.8	9.6	16	77	3.1	14	2.7
15	4.2	8.3	7.7	9.1	20	8.3	10	15	70	3.4	40	3.7
16	4.2	8.3	7.7	11	12	8.1	9.1	17	65	14	9.5	3.2
17	3.0	8.3	8.2	11	10	8.0	8.6	28	61	94	6.7	3.1
18	3.4	8.3	9.5	104	10	7.8	7.1	25	55	11	5.4	3.9
19	3.5	8.0	10	17	9.2	7.8	7.2	29	46	10	4.4	3.4
20	3.4	8.0	8.8	8.0	8.9	8.4	7.0	39	42	7.4	4.6	3.4
21	5.7	8.2	7.8	8.0	9.0	9.7	7.8	60	38	5.8	3.7	5.8
22	8.0	8.3	8.1	8.0	10	9.0	7.4	50	35	4.7	3.6	5.4
23	6.0	8.2	8.1	7.5	9.4	8.8	6.8	44	32	2.8	2.9	4.5
24	6.8	8.8	7.9	7.0	8.8	8.7	7.1	86	29	2.1	3.3	3.3
25	6.5	16	7.8	7.5	8.4	8.7	6.3	72	27	1.7	3.1	3.2
26	7.1	9.4	7.6	8.0	8.5	8.1	5.5	71	25	1.6	3.0	3.4
27	5.8	8.9	8.2	7.5	8.5	8.5	8.0	84	23	1.7	2.5	3.4
28	5.4	8.6	8.4	6.5	8.3	8.8	20	93	20	1.7	2.6	3.2
29	5.1	8.9	8.5	7.0	---	9.4	19	85	33	1.8	2.1	3.6
30	5.1	8.0	9.6	6.0	---	8.9	30	80	31	2.0	2.4	3.4
31	3.7	---	9.1	5.0	---	9.5	---	74	---	1.6	2.4	---
TOTAL	139.6	277.3	240.6	354.7	260.5	257.1	306.6	1317	2260	277.1	148.8	92.6
MEAN	4.50	9.24	7.76	11.4	9.30	8.29	10.2	42.5	75.3	8.94	4.80	3.09
MAX	8.0	32	10	104	20	9.7	30	93	387	94	40	5.8
MIN	3.0	4.7	5.0	4.5	6.0	7.1	5.5	15	20	1.6	1.2	2.1
AC-FT	277	550	477	704	517	510	608	2610	4480	550	295	184

CAL YR 1978 TOTAL 2335.9 MEAN 6.40 MAX 32 MIN 1.4 AC-FT 4630
WTR YR 1979 TOTAL 5931.9 MEAN 16.3 MAX 387 MIN 1.2 AC-FT 11770

08317200 SANTA FE RIVER ABOVE COCHITI LAKE, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--June 1979 to September 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JUN 28...	0800	20	305	7.9	24.5	15.0	8.3	79	0	25
JUL 05...	1325	11	376	6.9	--	26.0	--	--	--	--
12...	0730	4.7	560	8.0	--	12.0	--	--	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
JUN 28...	3.9	23	1.1	3.6	93	24	11	.4	16	163
JUL 05...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
JUN 28...	1.2	3.3	.40	4.9	.730	--	60	40	15
JUL 05...	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	4.1	--	--	21

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RA-226, DIS-SOLVED, PLAN-CHET COUNT (PCI/L) (09510)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
JUN 28...	0800	<2.8	10	4.3	7.4	4.0	7.1	--	.16	.80
JUL 12...	0730	--	--	--	--	--	--	<.1	--	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JUN 28...	0800	240000	5400

08317300 COCHITI LAKE NEAR COCHITI PUEBLO, NM

LOCATION.--Lat 35°37'01", long 106°18'58", in NW¼SW¼ sec.16, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, in control tower at Cochiti Dam, 1.7 mi (2.7 km) northeast of Cochiti Pueblo, and at mile 1,588.1 (2,555.3 km).

DRAINAGE AREA.--14,900 mi^2 (38,600 km^2), approximately, including 2,940 mi^2 (7,610 km^2), in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--November 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Apr. 15, 1975, at site 1.3 mi (2.1 km) upstream at same datum.

REMARKS.--Lake is formed by an earthfill dam on Rio Grande and Santa Fe River. Storage began on Nov. 12, 1973. Capacity 498,100 acre-ft (614 hm^3) between elevations 5,190.0 ft (1,581.91 m) and 5,450.0 ft (1,661.16 m), crest of service spillway. Dead storage 2,220 acre-ft (2.74 hm^3) below elevation 5,255.0 ft (1,601.72 m), invert of outlet structure. Lake was created primarily for flood and sediment control. A 50,000 acre-ft (62 hm^3) permanent pool is authorized for recreational purposes.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 184,400 acre-ft (227 hm^3) June 21, 1979, elevation, 5,387.99 ft (1,642.259 m); no storage prior to Nov. 12, 1973.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 184,400 acre-ft (227 hm^3) June 21, 1979, elevation, 5,387.99 ft (1,642.259 m); minimum, 45,880 acre-ft (56.6 hm^3) Aug. 16, elevation, 5,321.17 ft (1,621.893 m).

Capacity tables (elevation, in feet, and contents, in acre-feet)

Oct. 1 to Dec. 31
(Based on survey by Corps
of Engineers in 1972)

5329	57370
5330	58730
5331	60110

Jan. 1 to Sept. 30
(Based on survey by Corps
of Engineers in 1978)

5320	44490	5380	159700
5340	71900	5400	226600
5360	109000		

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	59140	58620	58670	56840	57090	57160	56640	48760	107900	173900	46390	46230
2	59110	58690	58690	56870	57190	57160	57060	47710	114900	172300	46180	46180
3	59030	59130	58800	56910	57060	57330	56820	47460	120100	170800	46140	46200
4	59010	59290	58770	57130	56950	57100	56820	47490	124400	169300	46140	46220
5	58990	58730	58740	57090	56910	56920	56850	48350	128200	167200	46200	46270
6	59010	58560	58860	57250	57090	57010	57060	49580	131200	164800	46160	46720
7	59010	58660	58740	57300	57220	57250	56670	50870	133800	162800	46160	46440
8	58970	58620	58620	57090	57200	57500	57090	52160	138600	159700	46220	46210
9	58900	58670	58560	57010	57160	57770	57130	53880	149200	156800	46100	46280
10	58780	58690	58650	57130	57190	57020	57870	54960	155000	153400	46220	46320
11	58820	58930	58970	57170	57080	56830	58840	54750	160300	150400	46260	46260
12	58850	58920	58890	57090	56990	56890	59700	53160	165300	146800	46260	46460
13	58810	58820	58850	57050	57130	57250	59700	50550	169800	142900	46340	46380
14	58820	58850	58740	57010	57260	57710	59110	48570	172300	138500	46280	46260
15	58850	58960	58810	57030	57250	57560	56980	47650	174100	133900	46480	46210
16	58780	58780	58590	57220	57170	57100	57080	47250	176600	128900	46000	46120
17	58670	58990	58670	57330	57100	58380	58560	48410	179200	123000	46280	46200
18	58720	58850	58850	57470	57080	58770	58860	50140	181500	118000	46440	46400
19	58760	58730	59000	57390	57030	56480	58470	51840	183300	112300	46420	46470
20	58830	58730	58810	57250	57080	55880	58010	53160	184200	106200	46350	46470
21	58850	58800	58520	57160	57210	56410	57620	56760	184400	100300	46270	46340
22	58920	58800	58450	57130	57100	56850	57300	61520	183700	93770	46180	46340
23	58940	58780	58510	57100	57050	56940	56830	64680	182500	88490	46300	46280
24	58820	58890	58550	57010	57080	56740	56000	68360	181100	82400	46300	46290
25	58770	59420	58590	57150	57030	57560	55750	71440	180100	76200	46260	46280
26	58780	58940	58620	57190	57080	57800	55790	76310	179300	69210	46210	46230
27	58620	58820	58620	57050	57060	57170	54600	81600	178600	62140	46290	46280
28	58550	58690	58660	57030	57120	57150	53160	86300	177600	55740	46240	46300
29	58620	58620	58760	57170	---	57100	51610	90910	176400	50600	46150	46280
30	58630	58620	58740	57080	---	57220	49940	95280	175200	46990	46280	46880
31	58600	---	58520	57080	---	56980	---	101800	---	46500	46330	---
MAX	59140	59420	59000	57470	57260	58770	59700	101800	184400	173900	46480	46880
MIN	58550	58560	58450	56840	56910	55880	49940	47250	107900	46500	46000	46120
(†)	5329.91	5329.92	5329.85	5329.99	5329.97	5329.87	5324.48	5356.57	5385.10	5321.68	5321.54	5322.00
(‡)	-500	+20	-100	a+200	-30	-140	-7040	+51860	+73400	-128700	-170	+550

CAL YR 1978 MAX 59800 MIN 46950 ‡ +10910
WTR YR 1979 MAX 184400 MIN 46000 ‡ a-10640

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
a Computed on basis of revised capacity table put into use Jan. 1, 1979.

08317400 RIO GRANDE BELOW COCHITI DAM, NM

LOCATION.--Lat 35°37'05", long 106°19'24", in SW¼NE¼ sec.17, T.16 N., R.6 E., Sandoval County, Hydrologic Unit 13020201, in Pueblo de Cochiti Grant, on right bank 320 ft (98 m) upstream from bridge on State Highway 22, 700 ft (210 m) downstream from Cochiti Dam, 1.4 mi (2.3 km) northeast of Cochiti Pueblo, and at mile 1,587.6 (2,554.4 km).

DRAINAGE AREA.--14,900 mi² (38,590 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,226.08 ft (1,592.909 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Nov. 14, 1973, at site 2.4 mi (3.9 km) downstream at altitude 5,210 ft (1,588 m), from topographic map. Nov. 14, 1973 to Jan. 8, 1976, at site 320 ft (98 m) downstream at datum 1.79 ft (0.546 m) lower.

REMARKS.--Water-discharge records good. Discharge includes flow of Santa Fe River which is intercepted by Cochiti Dam and released through the combined outlet works. Flow regulated by Cochiti Dam since Nov. 12, 1973. Diversions above station for irrigation of about 620,000 acres (2,500 km²) in Colorado and about 81,000 acres (330 km²) in New Mexico. Cochiti eastside main canal, on left bank, and Sili main canal, on right bank, head at Cochiti Dam and bypass gage for irrigation of about 6,000 acres (24 km²) below station; see tabulation below for monthly and yearly diversion.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge 10,300 ft³/s (292 m³/s) July 26, 1971, gage height, 7.90 ft (2.408 m), site and datum then in use, from rating curve extended above 2,600 ft³/s (74 m³/s); minimum, 0.51 ft³/s (0.014 m³/s) Aug. 3-5, 1977, Aug. 27-28, 1978, result of regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of May 15, 1941, reached a discharge of 23,400 ft³/s (663 m³/s) at a nearby site upstream from mouth of Santa Fe River. The flood of May 23, 1920, probably exceeded 23,400 ft³/s (663 m³/s), and is likely the highest since 1905.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,960 ft³/s (197 m³/s) May 31, gage height, 6.13 ft (1.868 m); maximum gage height, 6.14 ft (1.871 m) May 2; minimum discharge, 0.80 ft³/s (0.023 m³/s) Oct. 9, result of regulation.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	91	564	582	536	469	636	1740	5880	5770	5950	1450	407
2	111	558	533	323	521	567	1710	5640	5400	5930	1420	331
3	116	706	496	285	610	590	1690	5280	5810	5910	1280	293
4	99	920	539	354	579	725	1450	4920	6100	5880	1120	268
5	78	922	500	466	479	638	1370	4600	6090	5860	1040	244
6	54	692	469	473	411	472	1390	4660	6170	5840	974	663
7	74	534	503	555	498	455	1310	4910	6190	5840	904	1290
8	58	604	444	578	578	783	1610	5380	5530	5790	811	1190
9	92	625	268	447	598	1470	1970	5650	4950	5770	749	850
10	93	602	203	397	589	1800	2180	5950	6220	5930	788	869
11	41	606	348	471	650	1300	2390	6000	6190	6010	829	946
12	59	684	648	547	562	1070	2470	5890	6260	5980	734	923
13	75	734	874	525	501	987	2940	5830	6300	6010	775	919
14	60	599	901	487	566	1210	3140	5210	6310	6090	822	820
15	76	619	906	463	721	1560	2810	4610	6330	6060	1490	744
16	121	691	968	447	806	1740	2310	4410	6340	6170	1840	707
17	104	655	721	513	762	2030	2780	4420	6370	6250	1230	680
18	53	676	718	645	713	3170	4290	4930	6360	6140	1060	707
19	89	608	945	810	644	2940	5000	5280	6370	6220	1180	509
20	240	543	1170	636	665	1460	5090	5580	6260	6280	1200	273
21	378	513	1020	550	693	997	5030	5860	6070	6270	1130	243
22	422	537	717	507	744	1000	4990	6000	6070	6180	978	175
23	481	553	512	522	675	1150	5300	6150	6040	6050	860	190
24	567	545	482	491	677	1260	5840	6250	6030	5910	843	121
25	554	924	482	473	680	1130	5680	6300	6010	5780	770	119
26	573	1110	482	522	641	1730	5650	6410	6010	5600	729	129
27	612	799	482	550	645	2200	6290	6430	5990	5420	656	101
28	506	766	490	436	649	2020	6190	6590	5970	4860	680	119
29	440	666	536	457	---	2190	6080	6670	5950	4120	608	129
30	474	601	578	439	---	2280	5970	6770	5940	3160	445	271
31	484	---	690	439	---	2110	---	6820	---	1680	413	---
TOTAL	7275	20156	19207	15344	17326	43670	106660	175280	181400	174940	29808	15230
MEAN	235	672	620	495	619	1409	3555	5654	6047	5643	962	508
MAX	612	1110	1170	810	806	3170	6290	6820	6370	6280	1840	1290
MIN	41	513	203	285	411	455	1310	4410	4950	1680	413	101
AC-FT	14430	39980	38100	30430	34370	86620	211600	347700	359800	347000	59120	30210
(†)	6280	0	0	0	0	5990	6680	6830	5930	8000	7210	7330
(‡)	3950	8.3	2.1	.5	1.1	2880	3530	3880	3340	4240	3850	3710

CAL YR 1978 TOTAL 301945.7 MEAN 827 MAX 3470 MIN 8.7 AC-FT 598900 † 48290 ‡ 30700
WTR YR 1979 TOTAL 806296.0 MEAN 2209 MAX 6820 MIN 41 AC-FT 1599000 † 54260 ‡ 29390

† Diversion, in acre-feet, by Cochiti eastside main canal at head.
‡ Diversion, in acre-feet, by Sili main canal at head.

08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1974 to current year.
WATER TEMPERATURES: July 1971 to current year.
SUSPENDED SEDIMENT DISCHARGE: July 1974 to current year.

INSTRUMENTATION.--Continuous water-temperature recorder and automatic pumping sediment sampler.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 698 micromhos July 19, 1978; minimum daily, 130 micromhos July 30, 1978.
WATER TEMPERATURES: Maximum, 35.5°C Aug. 4, 1977; minimum, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 343 mg/L June 16, 1975; minimum daily, 1 mg/L Jan. 7-8, Feb. 10, Mar. 28, 1977.
SEDIMENT LOADS: Maximum daily, 3,540 tons (3,210 tonnes) June 16, 1975; minimum daily, 0.02 tons (0.02 tonnes) Aug. 4, 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 490 micromhos Mar. 9; minimum daily, 176 micromhos July 10.
WATER TEMPERATURES: Maximum, 22.5°C July 27, 29; minimum, 1.0°C Jan. 2, 31.
SEDIMENT CONCENTRATIONS: Maximum daily, 136 mg/L June 11; minimum daily, 2 mg/L Jan. 16, 22.
SEDIMENT LOADS: Maximum daily, 2,270 tons (2,060 tonnes) June 11; minimum daily, 0.96 tons (0.87 tonnes) Oct. 19.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
07...	1440	587	13.5	9	14	92

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	303	338	---	391	391	374	258	196	217	241	270
2	---	316	330	---	389	391	380	327	195	211	238	273
3	---	307	338	---	394	386	385	325	191	211	230	273
4	---	300	341	---	401	387	389	320	191	214	235	273
5	---	296	323	---	389	383	393	311	190	211	232	261
6	---	---	---	---	390	379	407	303	187	212	225	260
7	---	---	---	---	465	373	402	301	292	201	228	290
8	---	300	---	---	459	488	403	301	287	196	227	292
9	---	317	---	374	467	490	401	287	304	195	293	302
10	---	312	---	445	446	471	405	272	281	176	304	296
11	375	313	---	435	434	441	398	267	277	294	280	384
12	---	324	---	432	432	448	398	267	266	293	287	391
13	---	316	---	431	436	470	466	261	278	285	291	390
14	---	320	---	433	435	465	456	253	278	253	294	366
15	---	325	---	424	425	430	457	255	260	260	293	377
16	---	337	---	418	423	423	450	258	252	268	284	374
17	319	340	---	418	417	426	441	251	262	263	293	369
18	351	345	---	416	416	414	429	247	262	243	295	360
19	346	345	---	411	411	384	413	241	248	235	287	355
20	345	340	---	409	412	395	393	232	240	240	285	365
21	341	344	---	409	416	406	365	227	243	241	275	366
22	342	338	---	406	412	393	355	219	238	237	283	356
23	339	349	---	405	403	382	339	222	227	227	293	337
24	335	336	---	398	402	370	335	221	229	237	278	340
25	330	341	---	399	399	365	312	214	232	238	280	343
26	325	332	---	401	399	333	292	215	236	230	263	353
27	320	330	---	397	395	347	284	206	229	233	270	359
28	313	344	---	395	393	352	277	202	219	225	272	354
29	308	334	---	392	---	366	265	202	219	236	271	346
30	305	340	---	395	---	373	261	199	218	243	256	349
31	298	---	---	392	---	368	---	198	---	238	266	---
MEAN	331	327	334	410	416	403	378	254	241	234	269	334

WTR YR 1979 MEAN 324 MAX 490 MIN 176

08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

WATER TEMPERATURE (DEG.°C), RECORDER MAXIMUM, AND MEAN, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	19.5	17.5	18.0	---	---	---	8.5	8.0	8.0	3.0	2.0	2.5
2	19.0	17.5	18.0	---	---	---	8.0	7.0	7.5	2.0	1.0	1.5
3	19.0	17.5	18.0	---	---	---	7.5	7.0	7.5	2.0	1.5	2.0
4	19.5	17.5	18.0	---	---	---	7.5	7.0	7.0	2.5	2.0	2.0
5	19.5	17.5	18.0	---	---	---	7.5	6.5	7.0	2.5	2.0	2.0
6	19.5	17.0	18.0	---	---	---	6.5	6.0	6.5	2.5	2.0	2.5
7	19.5	17.5	18.0	---	---	---	6.5	6.0	6.0	2.5	2.0	2.5
8	20.5	12.5	17.5	---	---	---	6.0	5.5	5.5	2.5	2.0	2.5
9	19.0	10.0	15.5	---	---	---	5.5	5.0	5.0	2.5	2.0	2.0
10	20.0	17.5	18.5	---	---	---	5.5	4.5	5.0	2.5	2.0	2.0
11	18.5	16.5	17.5	---	---	---	5.0	4.5	5.0	2.5	2.0	2.5
12	18.5	17.0	17.5	---	---	---	5.0	4.5	4.5	2.5	2.0	2.0
13	18.5	16.5	17.5	---	---	---	4.5	4.5	4.5	2.5	2.0	2.0
14	19.0	17.0	17.5	---	---	---	4.5	4.5	4.5	2.0	2.0	2.0
15	18.0	16.5	17.0	11.5	11.0	11.5	4.5	4.5	4.5	2.5	2.0	2.0
16	18.0	16.5	17.0	11.5	11.0	11.0	4.5	4.0	4.0	2.5	2.0	2.0
17	18.0	16.5	17.0	11.0	10.5	11.0	4.0	4.0	4.0	2.5	2.0	2.0
18	18.0	16.0	17.0	11.0	10.5	10.5	4.0	4.0	4.0	2.5	2.0	2.0
19	17.5	16.0	16.5	10.5	10.0	10.5	4.0	3.5	4.0	2.5	2.0	2.5
20	17.0	16.0	16.5	10.5	10.0	10.0	4.0	3.5	3.5	2.5	2.0	2.0
21	16.5	16.5	16.5	10.0	9.5	10.0	3.5	3.5	3.5	2.5	1.5	2.0
22	16.5	16.0	16.5	9.5	9.0	9.5	3.5	3.5	3.5	2.5	2.0	2.0
23	16.5	16.0	16.0	9.5	9.5	9.5	3.5	2.0	2.5	2.5	2.0	2.0
24	16.0	16.0	16.0	10.0	9.5	9.5	2.5	2.5	2.5	2.0	1.5	2.0
25	---	---	---	10.0	9.0	9.5	2.5	2.0	2.5	2.0	2.0	2.0
26	---	---	---	9.5	9.0	9.5	2.5	2.0	2.0	2.5	2.0	2.5
27	---	---	---	9.0	8.5	8.5	2.5	2.5	2.5	2.0	2.0	2.0
28	---	---	---	8.5	8.5	8.5	3.0	2.5	2.5	2.5	1.5	2.0
29	---	---	---	8.5	8.0	8.5	3.0	2.5	3.0	2.5	2.0	2.0
30	---	---	---	8.5	8.0	8.5	3.0	2.5	2.5	2.0	2.0	2.0
31	---	---	---	---	---	---	2.5	2.5	2.5	2.0	1.0	2.0
MONTH	20.5	10.0	17.0	11.5	8.0	10.0	8.5	2.0	4.5	3.0	1.0	2.0

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	2.5	2.0	2.0	4.0	3.5	3.5	8.0	7.0	7.5	12.0	11.0	11.5
2	2.5	2.0	2.0	4.5	4.0	4.5	8.0	7.5	7.5	12.5	11.5	12.0
3	2.0	2.0	2.0	4.5	4.0	4.0	8.0	7.5	8.0	12.5	11.5	11.5
4	2.0	2.0	2.0	4.5	4.0	4.0	8.0	8.0	8.0	---	---	---
5	2.5	2.0	2.0	---	---	---	8.0	7.5	8.0	---	---	---
6	2.0	2.0	2.0	---	---	---	8.5	7.5	8.0	---	---	---
7	2.0	2.0	2.0	5.0	4.5	4.5	8.5	8.0	8.5	---	---	---
8	2.5	2.0	2.0	5.5	4.5	5.0	9.0	8.5	8.5	---	---	---
9	2.5	2.0	2.0	5.0	4.5	5.0	9.0	8.5	8.5	---	---	---
10	2.5	2.0	2.0	5.5	4.5	5.0	9.5	8.5	9.0	---	---	---
11	2.5	2.0	2.0	6.5	5.5	5.5	9.5	8.5	9.0	---	---	---
12	2.5	2.0	2.0	6.0	5.5	6.0	9.0	8.5	8.5	---	---	---
13	2.5	2.0	2.0	6.5	5.5	6.0	8.5	8.5	8.5	---	---	---
14	2.5	2.0	2.5	6.0	5.0	5.5	8.5	8.0	8.5	---	---	---
15	2.5	2.5	2.5	6.5	5.5	6.0	8.5	8.0	8.5	---	---	---
16	2.5	2.5	2.5	6.5	6.0	6.5	9.5	8.5	8.5	---	---	---
17	2.5	2.5	2.5	6.5	5.5	6.0	9.5	8.5	9.0	---	---	---
18	3.0	2.5	2.5	7.0	6.0	6.5	10.0	8.5	9.5	---	---	---
19	3.0	2.5	3.0	6.5	6.0	6.5	11.0	9.5	10.5	---	---	---
20	3.0	2.5	3.0	6.5	6.0	6.5	11.5	10.0	11.0	---	---	---
21	3.0	3.0	3.0	6.5	6.5	6.5	11.0	10.5	10.5	---	---	---
22	3.0	3.0	3.0	7.0	6.5	6.5	11.5	10.5	11.0	---	---	---
23	3.0	3.0	3.0	7.5	6.5	7.0	12.0	10.5	11.5	---	---	---
24	3.5	3.0	3.5	7.5	6.5	7.0	12.0	11.5	11.5	---	---	---
26	3.5	3.0	3.5	7.5	7.0	7.0	12.0	11.5	11.5	---	---	---
27	4.0	3.5	3.5	7.5	6.5	7.0	12.0	11.5	11.5	---	---	---
28	4.0	3.5	3.5	7.5	7.0	7.5	12.0	11.0	11.5	---	---	---
29	---	---	---	7.5	7.5	7.5	12.5	11.0	11.5	---	---	---
30	---	---	---	7.5	7.5	7.5	12.5	11.5	12.0	---	---	---
31	---	---	---	7.5	7.0	7.5	---	---	---	---	---	---
MONTH	4.0	2.0	2.5	7.5	3.5	6.0	12.5	7.0	9.5	12.5	11.0	11.5

08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	JUNE			JULY			AUGUST			SEPTEMBER		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	21.5	21.0	21.5	---	---	---
2	---	---	---	---	---	---	21.5	20.5	21.0	---	---	---
3	---	---	---	---	---	---	21.5	20.5	21.0	---	---	---
4	---	---	---	---	---	---	21.5	20.5	21.5	---	---	---
5	15.0	12.5	14.5	---	---	---	21.5	21.0	21.5	---	---	---
6	15.0	14.5	14.5	---	---	---	21.5	20.5	21.5	---	---	---
7	14.5	14.5	14.5	---	---	---	21.5	21.0	21.5	---	---	---
8	15.0	14.0	14.5	---	---	---	21.5	20.5	21.5	---	---	---
9	15.0	14.5	15.0	---	---	---	22.0	21.0	21.5	---	---	---
10	15.5	14.0	14.5	18.5	18.0	18.0	22.0	21.0	21.5	---	---	---
11	14.5	13.5	14.0	18.5	18.0	18.5	22.0	21.0	21.5	22.0	21.5	22.0
12	14.0	13.5	14.0	19.0	18.0	18.5	21.5	21.0	21.5	22.0	21.5	22.0
13	14.5	13.5	14.0	19.0	18.0	18.5	22.0	21.0	21.5	22.0	21.5	21.5
14	15.0	14.0	14.5	19.0	18.5	19.0	21.5	21.5	21.5	21.5	20.5	21.0
15	15.0	14.0	14.5	19.0	18.5	19.0	22.0	21.5	21.5	21.0	20.5	20.5
16	15.0	14.5	14.5	19.5	18.5	19.0	21.5	20.5	21.0	20.5	20.0	20.5
17	15.5	15.0	15.0	19.5	19.0	19.0	21.0	20.5	21.0	20.0	19.5	20.0
18	16.0	15.0	15.5	20.0	19.0	19.5	21.0	20.5	20.5	20.0	19.5	20.0
19	16.0	15.5	16.0	20.0	19.5	20.0	21.0	20.5	20.5	20.0	19.0	19.5
20	16.0	15.5	16.0	20.0	20.0	20.0	20.5	20.0	20.5	20.0	19.0	19.5
21	16.0	15.5	16.0	20.5	20.0	20.0	20.5	20.0	20.5	20.0	19.0	19.5
22	---	---	---	20.5	20.0	20.5	20.5	20.0	20.0	20.0	19.0	19.5
23	---	---	---	21.0	20.5	20.5	20.5	20.0	20.0	20.0	19.0	19.0
24	---	---	---	21.0	19.5	21.0	20.0	19.5	20.0	20.5	18.5	19.5
25	---	---	---	21.0	20.5	21.0	20.0	20.0	20.0	20.0	18.5	19.0
26	---	---	---	21.5	20.5	21.5	20.5	19.5	20.0	20.0	18.5	19.5
27	---	---	---	22.5	21.0	21.5	20.5	20.0	20.0	20.0	18.5	19.0
28	---	---	---	22.0	21.5	21.5	20.5	20.0	20.0	20.0	18.5	19.0
29	---	---	---	22.5	22.0	22.0	---	---	---	20.0	19.0	19.0
30	---	---	---	22.0	21.5	22.0	---	---	---	20.0	19.0	19.0
31	---	---	---	21.5	21.0	21.0	---	---	---	---	---	---
MONTH	16.0	12.5	15.0	22.5	18.0	20.0	22.0	19.5	21.0	22.0	18.5	20.0
YEAR	22.5	1.0	11.0									

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
1	14	3.4	6	9.1	16	25	10	14	6	7.6	9	15
2	16	4.8	5	7.5	19	27	10	8.7	5	7.0	9	14
3	20	6.3	5	9.5	12	16	9	6.9	12	20	7	11
4	18	4.8	7	17	12	17	9	8.6	9	14	9	18
5	17	3.6	15	37	13	18	9	11	12	16	11	19
6	15	2.2	10	19	9	11	8	10	11	12	9	11
7	16	3.2	9	13	8	11	8	12	6	8.1	23	28
8	16	2.5	7	11	8	9.6	8	12	8	12	15	32
9	20	5.0	6	10	6	4.3	8	9.7	7	11	17	67
10	19	4.8	9	15	5	2.7	7	7.5	8	13	11	53
11	19	2.1	9	15	6	5.6	7	8.9	12	21	14	49
12	17	2.7	6	11	10	17	7	10	12	18	11	32
13	15	3.0	6	12	12	28	6	8.5	8	11	17	45
14	15	2.4	6	9.7	12	29	9	12	11	17	22	72
15	16	3.3	7	12	15	37	3	3.8	10	19	20	84
16	10	3.3	11	21	15	39	2	2.4	8	17	16	75
17	7	2.0	8	14	13	25	6	8.3	8	16	14	77
18	7	1.0	11	20	10	19	3	5.2	7	13	21	180
19	4	.96	10	16	16	41	6	13	12	21	26	206
20	5	3.2	8	12	24	76	4	6.9	6	11	37	146
21	7	7.1	5	6.9	20	55	5	7.4	4	7.5	46	124
22	5	5.7	13	19	18	35	2	2.7	7	14	35	94
23	7	9.1	9	13	16	22	6	8.5	10	18	35	109
24	5	7.7	10	15	12	16	9	12	7	13	40	136
25	8	12	6	15	12	16	5	6.4	7	13	29	88
26	5	7.7	5	15	10	13	4	5.6	9	16	25	117
27	6	9.9	6	13	10	13	5	7.4	6	10	24	143
28	6	8.2	7	14	9	12	6	7.1	10	18	22	120
29	6	7.1	6	11	10	14	7	8.6	---	---	28	166
30	6	7.7	13	21	8	12	5	5.9	---	---	70	431
31	5	6.5	---	---	12	22	4	4.7	---	---	25	142
TOTAL	---	153.26	---	433.7	---	688.2	---	255.7	---	394.2	---	2904

08317400 RIO GRANDE BELOW COCHITI DAM, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	18	85	67	1060	79	1230	13	209	38	149	28	31
2	21	97	85	1290	64	933	15	240	32	123	29	26
3	19	87	82	1170	92	1440	12	191	20	69	25	20
4	19	74	76	1010	94	1550	13	206	27	82	23	17
5	17	63	66	820	59	970	22	348	28	79	24	16
6	24	90	83	1040	79	1320	21	331	12	32	20	36
7	15	53	74	981	75	1250	11	173	8	20	13	45
8	16	70	72	1050	67	1000	14	219	14	31	9	29
9	14	74	93	1420	59	789	18	280	17	34	13	30
10	19	112	82	1320	75	1260	20	320	18	38	15	35
11	12	77	62	1000	136	2270	30	487	15	34	25	64
12	21	140	56	891	106	1790	26	420	13	26	36	90
13	20	159	67	1050	109	1850	41	665	16	33	41	102
14	21	178	62	872	131	2230	28	460	19	42	31	69
15	20	152	51	635	82	1400	21	344	37	149	29	58
16	16	100	61	726	67	1150	23	383	52	258	35	67
17	20	150	71	847	65	1120	22	371	35	116	39	72
18	30	347	63	839	49	841	20	332	35	100	36	69
19	40	540	57	813	41	705	27	453	47	150	28	38
20	66	907	64	964	42	710	25	424	52	168	41	30
21	79	1070	66	1040	40	656	22	372	43	131	39	26
22	69	930	79	1280	34	557	17	284	46	121	23	11
23	75	1070	113	1880	34	554	25	408	40	93	20	10
24	51	962	116	1960	24	391	16	255	18	41	16	5.2
25	71	1090	112	1910	26	422	25	390	19	40	17	5.5
26	79	1210	86	1490	40	649	54	816	38	75	15	5.2
27	89	1510	98	1700	29	469	30	439	51	90	16	4.4
28	115	1920	94	1670	32	516	31	407	39	72	11	3.5
29	38	624	78	1400	22	353	35	389	34	56	11	3.8
30	74	1190	117	2140	11	176	38	324	34	41	20	15
31	---	---	50	921	---	---	41	186	31	35	---	---
TOTAL	---	15131	---	37189	---	30551	---	11126	---	2528	---	1033.6

TOTAL LOAD FOR YEAR: 102387.66 TONS.

08317900 GALISTEO RESERVOIR NEAR CERRILLOS, NM

LOCATION.--Lat 35°27'44", long 106°12'30", in NW¼ sec.9, T.14 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, in Mesita de Juana Lopez Grant, at Galisteo Dam on Galisteo Creek, 5.0 mi (8.0 km) northwest of Cerrillos, and at mile 11.8 (19.0 km).

DRAINAGE AREA.--596 mi² (1,544 km²).

PERIOD OF RECORD.--October 1970 to current year.

GAGE.--Water-stage recorder above elevation 5,500.3 ft (1,676.49 m), nonrecording below. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by an earthfill dam, completed Oct. 11, 1970. Capacity 88,990 acre-ft (110 hm³) between elevations 5,496.0 ft (1,675.18 m), sill of ungated outlet conduit, and 5,608.0 ft (1,709.32 m), crest of uncontrolled spillway. No dead storage. Reservoir is used for flood control.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,510 acre-ft (3.09 hm³) July 26, 1971, elevation, 5,517.00 ft (1,681.582 m); no storage most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 687 acre-ft (847,000 m³) June 8, elevation, 5,511.45 ft (1,679.900 m); no storage most of time.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Based on survey by Corps of Engineers in 1972)

5,500	0	5,504	41	5,508	244
5,501	2	5,505	69	5,510	468
5,502	9	5,506	109	5,512	781
5,503	21				

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0
3	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0	0	0	0	0
6	0	0	0	0	0	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0	119	0	0	0
9	0	0	0	0	0	0	0	0	0	0	0	0
10	0	0	0	0	0	0	0	0	0	0	166	0
11	0	0	0	0	0	0	0	0	0	0	0	0
12	0	0	0	0	0	0	0	0	0	0	0	0
13	0	0	0	0	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0	0	0
17	0	0	0	0	0	0	0	0	0	0	0	0
18	0	0	0	0	0	0	0	0	0	6	0	0
19	0	0	0	0	0	0	0	0	0	0	0	0
20	0	0	0	0	0	0	0	0	0	0	0	0
21	0	0	0	0	0	0	0	0	0	0	0	0
22	0	0	0	0	0	0	0	0	0	0	0	0
23	0	0	0	0	0	0	0	0	0	0	0	0
24	0	0	0	0	0	0	0	0	0	0	0	0
25	0	0	0	0	0	0	0	0	0	0	0	0
26	0	0	0	0	0	0	0	0	0	0	176	0
27	0	0	0	0	0	0	0	0	0	0	0	0
28	0	0	0	0	0	0	0	0	0	0	0	0
29	0	0	0	0	---	0	0	0	0	0	0	0
30	0	0	0	0	---	0	0	0	0	0	0	0
31	0	---	0	0	---	0	---	0	---	0	0	---
MAX	.00	.00	.00	.00	.00	.00	.00	.00	119	6.0	176	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
(†)	-	-	-	-	-	-	-	-	-	-	-	-
(‡)	0	0	0	0	0	0	0	0	0	0	0	0

CAL YR 1978 MAX 41 MIN .00 ‡ 0
WTR YR 1979 MAX 176 MIN .00 ‡ 0

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08317950 GALISTEO CREEK BELOW GALISTEO DAM, NM

LOCATION.--Lat 35°27'56", long 106°12'57", in SE¼SE¼ sec.5, T.14 N., R.7 E., Santa Fe County, Hydrologic Unit 13020201, in Mesita de Juana Lopez Grant, on right bank 0.6 mi (1.0 km) downstream from Galisteo Dam, 5.5 mi (8.8 km) northwest of Cerrillos, and at mile 11.2 (18.0 km).

DRAINAGE AREA.--597 mi^2 (1,546 km^2).

PERIOD OF RECORD.--March 1970 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,450 ft (1,661 m), from topographic map.

REMARKS.--Records poor. Flow regulated by Galisteo Reservoir 0.6 mi (1.0 km) upstream. Diversions for irrigation of about 50 acres (20 hm^2) above station.

AVERAGE DISCHARGE.--9 years, 6.76 ft^3/s (0.191 m^3/s), 4,900 acre-ft/yr (6.04 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,000 ft^3/s (56.6 m^3/s) July 27, 1971, gage height, 7.00 ft (2.134 m); maximum gage height, 7.33 ft (2.234 m) July 20, 1971; no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,420 ft^3/s (40.2 m^3/s) June 8, gage height, 6.91 ft (2.106 m); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.0	.50	1.0	1.3	.00	.00	4.5	.00	.00	.00
2	.00	.00	.90	.20	2.0	1.1	.00	.00	45	.00	.00	.00
3	.00	9.5	.70	.50	4.5	.52	.00	.89	10	.00	.00	.00
4	.00	42	.70	1.0	4.0	.40	.00	1.8	8.5	.00	.00	.00
5	.00	2.6	.80	1.6	4.0	.44	.00	.00	7.0	.00	.00	.00
6	.00	1.4	.70	1.6	3.5	.44	.00	.00	6.0	.00	.00	.00
7	.00	.98	.50	1.4	2.5	.34	.00	.00	1.5	.00	.00	.00
8	.00	.56	.40	2.1	4.8	.25	.00	.00	525	.00	.00	.00
9	.00	.34	.25	2.1	4.3	.25	.00	.00	200	.00	.00	.00
10	.00	.20	.25	2.6	1.1	4.0	.18	.00	50	.00	50	.00
11	.00	.70	.30	1.8	.91	3.3	.00	.00	20	.00	125	.00
12	.00	1.4	.30	.99	.82	2.4	.00	.00	8.0	.00	50	.00
13	.00	.79	.30	.82	.74	2.3	.00	.00	.40	.00	10	.00
14	.00	.44	.40	.68	3.9	2.2	.00	.00	.00	.00	.00	.00
15	.00	.56	.50	2.2	35	3.4	.00	.00	.00	.00	100	.00
16	.00	.39	.50	2.6	26	2.1	.00	.00	.00	25	20	.00
17	.00	.17	.40	.50	19	2.3	.00	.00	.00	65	5.0	.00
18	.00	.15	.80	1.7	18	2.4	.00	.00	.00	150	2.5	.00
19	.00	.13	1.0	1.0	17	1.9	.00	.00	.00	35	1.0	.00
20	.00	.15	.86	.55	12	1.7	1.7	2.0	.00	3.5	.25	.00
21	.50	.18	.89	.62	7.6	1.8	1.4	18	.00	1.0	.00	.00
22	1.0	.22	.88	.71	7.0	.32	.00	3.0	.00	.10	.00	.00
23	.88	.25	.79	.54	5.2	.01	.00	.05	.00	.00	.00	.00
24	1.0	.50	.90	.87	3.1	.00	.00	87	.00	.00	.00	.00
25	.62	1.0	.72	3.6	2.6	.00	.00	15	.00	.00	.00	.00
26	.92	.90	.61	3.2	2.1	.00	.00	2.0	.00	.00	.00	.00
27	.43	.80	.83	1.4	2.0	.00	.00	16	.00	.00	75	.00
28	.00	.70	.90	1.0	2.0	.00	.00	17	.00	.00	10	.00
29	.00	.80	.80	1.0	---	.00	.00	10	.00	.00	.00	.00
30	.00	.80	1.0	.50	---	.00	.00	4.0	.00	.00	.00	.00
31	.00	---	.90	.50	---	.00	---	1.0	---	.00	.00	---
TOTAL	5.35	68.61	20.78	40.38	196.67	35.17	3.28	177.74	885.90	279.60	448.75	.00
MEAN	.17	2.29	.67	1.30	7.02	1.13	.11	5.73	29.5	9.02	14.5	.000
MAX	1.0	42	1.0	3.6	35	4.0	1.7	87	525	150	125	.00
MIN	.00	.00	.25	.20	.74	.00	.00	.00	.00	.00	.00	.00
AC-FT	11	136	41	80	390	70	6.5	353	1760	555	890	.00

CAL YR 1978 TOTAL 614.22 MEAN 1.68 MAX 120 MIN .00 AC-FT 1220
WTR YR 1979 TOTAL 2162.23 MEAN 5.92 MAX 525 MIN .00 AC-FT 4290

08319000 RIO GRANDE AT SAN FELIPE, NM
(Surveillance network station)

LOCATION.--Lat 35°26'39", long 106°26'23", in SW¼NW¼ sec.17, T.14 N., R.5 E., Sandoval County, Hydrologic Unit 13020201, in San Felipe Grant, on right bank 200 ft (61 m) downstream from Tonque Arroyo, 1,700 ft (520 m) upstream from steel highway bridge, 0.8 mi (1.3 km) upstream from San Felipe Pueblo, 11 mi (18 km) northeast of Bernalillo, and at mile 1,572.7 (2,530.5 km).

DRAINAGE AREA.--16,100 mi^2 (41,670 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1925 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1926-30, WSP 1392: 1937(M), WSP 1512: 1931-32, 1933(M), 1934-36, 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 5,115.73 ft (1,559.275 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 27, 1957, at site 1,800 ft (550 m) downstream at datum 5.35 ft (1.63 m) lower, except period May 16, 1945 to Sept. 30, 1946 when it was 5.94 ft (1.81 m) lower than present datum.

REMARKS.--Water-discharge records good. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 17 mi (27 km) upstream. Prior to November 1973 some regulation of flow by El Vado Reservoir (station 08285000) and Abiquiu Reservoir (station 08286900). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions for irrigation of about 705,000 acres (2,900 km^2) above station, some of which is irrigated below by Cochiti eastside main canal and San Felipe eastside acequia, which bypass station.

AVERAGE DISCHARGE.--48 years (water years 1926-73), 1,374 ft^3/s (38.91 m^3/s), 995,500 acre-ft/yr (1.23 km^3/yr) prior to closure of Cochiti Dam.
6 years (water years 1974-79), 1,206 ft^3/s (34.15 m^3/s), 873,700 acre-ft/yr (1.08 km^3/yr) since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,300 ft^3/s (773 m^3/s) June 26, 1937, gage height, 11.13 ft (3.392 m) site and datum then in use, from rating curve extended above 15,000 ft^3/s (425 m^3/s); minimum, 32 ft^3/s (0.906 m^3/s) July 7, 1934.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in 1874, 1884, and 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,550 ft^3/s (214 m^3/s) July 19, gage height, 6.93 ft (2.112 m); minimum daily, 111 ft^3/s (3.14 m^3/s) Oct. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	191	626	676	600	565	705	2000	5960	6230	6180	1500	542
2	188	589	651	500	535	699	1770	5860	5390	6150	1500	475
3	218	777	593	469	665	588	1950	5420	5620	6130	1350	397
4	192	937	623	477	661	762	1600	5130	6110	6110	1200	379
5	182	916	623	584	590	770	1590	4650	6110	6070	1100	337
6	147	838	560	560	488	601	1500	4620	6160	6050	1040	475
7	136	580	590	613	528	582	1530	4680	6160	6060	990	1490
8	187	590	584	675	627	730	1520	5080	6380	5990	893	1450
9	111	600	427	562	665	1240	2030	5370	4760	5930	810	1180
10	240	620	363	471	648	1550	2100	5560	6190	6010	828	989
11	119	640	366	497	697	1380	2320	5730	6200	6180	1150	1180
12	146	700	668	605	666	1140	2360	5690	6260	6150	908	1120
13	182	796	819	596	578	1110	2640	5600	6320	6160	853	1120
14	208	728	927	549	601	1180	2850	5250	6350	6360	1020	1070
15	178	669	907	548	738	1500	2700	4660	6360	6340	1700	938
16	221	774	972	529	841	1600	2280	4370	6390	6400	2150	931
17	235	720	869	561	832	1750	2420	4380	6420	6630	1720	863
18	169	745	761	708	778	2400	4080	4690	6410	6530	1340	897
19	172	714	895	829	729	2850	5000	5090	6450	6810	1500	819
20	269	644	1200	777	716	1830	4940	5400	6420	6690	1560	388
21	489	611	1150	651	741	1240	4970	5700	6180	6750	1460	403
22	526	623	900	614	791	1210	4970	5860	6180	6630	1360	293
23	586	641	700	616	757	1310	5190	5930	6160	6480	1150	297
24	657	647	560	591	714	1470	5750	6080	6160	6320	1090	289
25	703	803	540	561	752	1330	5890	6270	6180	6280	1040	266
26	648	1100	540	586	700	1740	5640	6310	6230	6200	977	272
27	717	831	550	633	700	2320	6000	6470	6210	6060	949	263
28	681	838	560	575	698	2120	6140	6600	6160	5550	838	262
29	574	750	580	507	---	2230	6070	6770	6170	4730	835	262
30	607	697	640	573	---	2320	6000	6830	6180	3620	619	292
31	601	---	730	462	---	2240	---	6910	---	1800	536	---
TOTAL	10480	21744	21524	18079	19001	44497	105800	172920	184500	185350	35966	19939
MEAN	338	725	694	583	679	1435	3527	5578	6150	5979	1160	665
MAX	717	1100	1200	829	841	2850	6140	6910	6450	6810	2150	1490
MIN	111	580	363	462	488	582	1500	4370	4760	1800	536	262
AC-FT	20790	43130	42690	35860	37690	88260	209900	343000	366000	367600	71340	39550
(†)	3200	0	0	0	0	3580	3870	3730	3220	4230	3490	4260

CAL YR 1978 TOTAL 339596 MEAN 930 MAX 3350 MIN 67 AC-FT 673600
WTR YR 1979 TOTAL 839800 MEAN 2301 MAX 6910 MIN 111 AC-FT 1666000

(†) MONTHLY DIVERSION, IN ACRE-FT, OF COCHITI EASTSIDE CANAL; RECORD OF THIS FLOW IS FURNISHED BY MIDDLE RIO GRANDE CONSERVANCY DISTRICT.

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
OCT 11...	0952	120	385	8.1	17.5	14.0	80	8.9	290	150	20	46
NOV 07...	1130	580	328	8.3	15.5	12.0	7.1	9.8	0	130	24	43
DEC 05...	1245	644	328	8.3	9.0	7.0	5.0	11.2	5	130	17	40
JAN 09...	1100	604	367	8.3	2.5	2.5	4.1	12.3	3	130	13	40
FEB 06...	1040	484	385	8.3	1.5	2.5	3.0	11.8	22	150	20	47
MAR 06...	1015	636	360	7.9	10.5	5.0	9.1	11.8	22	140	19	42
APR 12...	0930	2440	380	8.4	7.0	9.0	11	10.2	9	150	55	45
MAY 01...	1010	5980	240	8.1	18.0	13.0	68	10.0	28	93	36	28
JUN 05...	1400	6140	173	8.2	22.0	16.0	83	9.4	20	77	19	25
JUL 10...	1000	5860	198	7.9	26.5	18.5	20	8.2	14	70	10	22
AUG 08...	1015	950	258	7.9	25.0	20.5	3.8	10.2	12	92	12	29
SEP 06...	1040	334	310	8.0	25.5	19.0	1.6	8.1	13	120	24	40

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L) (00530)
OCT 11...	8.5	34	1.2	3.3	130	69	6.1	.4	17	254	262	39
NOV 07...	6.5	21	.8	3.1	110	49	6.4	.3	18	213	213	31
DEC 05...	6.6	22	.9	2.9	110	47	6.7	.4	19	227	211	20
JAN 09...	8.1	25	.9	2.9	120	60	7.7	.4	21	243	238	37
FEB 06...	9.0	26	.9	2.9	130	61	8.5	.4	23	260	255	0
MAR 06...	8.2	24	.9	2.8	120	61	7.8	.5	20	237	238	17
APR 12...	9.2	24	.9	2.9	95	82	5.9	.3	18	247	246	21
MAY 01...	5.5	11	.5	2.3	57	44	4.3	.2	15	167	146	106
JUN 05...	3.5	4.5	.2	2.4	58	27	3.2	.3	14	138	115	--
JUL 10...	3.7	9.4	.5	2.2	60	31	2.7	.2	17	125	124	27
AUG 08...	4.7	13	.6	2.9	80	35	4.6	.3	21	162	159	34
SEP 06...	5.1	16	.6	3.2	97	43	4.8	.4	20	193	191	22

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)
OCT											
11...	.05	.01	.01	.29	.35	.040	.01	80	30	3.4	1.1
NOV											
07...	.02	.08	.01	.41	.44	.030	.05	80	50	2.7	.6
DEC											
05...	.02	.45	.01	.35	.38	.060	.04	60	10	2.6	.5
JAN											
09...	.05	.04	.01	.36	.42	.030	.00	50	20	2.7	.5
FEB											
06...	.05	.08	.01	.14	.20	.030	.02	60	0	2.3	.5
MAR											
06...	.04	.00	.01	.22	.27	.030	.00	40	0	2.7	1.0
APR											
12...	.15	.45	.02	.34	.51	.060	.00	50	10	2.8	--
MAY											
01...	.20	.20	.05	.45	.70	.130	.00	40	60	6.5	1.4
JUN											
05...	.11	.13	.03	.41	.55	.190	.00	30	20	9.0	1.1
JUL											
10...	.10	.00	.01	.25	.36	.070	.01	30	30	4.7	.2
AUG											
08...	.21	.18	.01	.20	.42	.070	.04	40	30	3.9	.3
SEP											
06...	.01	.04	.10	.51	.62	.040	.03	50	20	4.5	.7

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)
DEC								
05...	1245	3	--	60	2	--	10	--
MAR								
06...	1015	2	--	40	3	--	0	--
JUN								
05...	1400	2	--	30	0	--	10	--
AUG								
08...	1015	3	2	40	1	0	10	0

DATE	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)
DEC							
05...	2	--	10	23	--	.0	--
MAR							
06...	6	--	0	45	--	.1	--
JUN							
05...	10	--	20	14	--	.9	--
AUG							
08...	3	11	30	3	0	.4	.5

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)	LEAD, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS PB) (01052)	MERCURY RECOV. FM BOT- TOM MA- TERIAL (UG/G AS HG) (71921)
AUG							
08...	1015	2	0	3	3	5	.01

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)
AUG										
08...	1015	.0	0	.00	.0	.0	0	.00	.1	.00

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)
AUG										
08...	.4	.00	.1	.00	.0	.00	.00	.0	.00	.0

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	PERTHANE TOTAL (UG/L) (39034)	MIREX, TOTAL (UG/L) (39755)
AUG										
08...	.00	.0	.00	.0	.00	.0	0	0	.00	.00

Results of Analysis of Water and Bed Materials for Selected Chlorinated Hydrocarbon Isomers

Date	Time	o-p'-DDE	o-p'-DDD	o-p'DDT	cis-chlordane	trans-chlordane	α-BHC	Hexachlorobenzene	cis-nonachlor
Aug									
08	1015 (w)	0	0	0	0	0	0	0	0
	(s)	0	0	0	0	0	0	0	0

NOTE: Reporting units are ug/L for water samples (w) and ug/kg for bed material sediment samples (s). The lowest detectable limit is 0.01 ug/L for water samples and 0.1 ug/kg for sediment samples.

08319000 RIO GRANDE AT SAN FELIPE, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
11...	0952	97	81
NOV			
07...	1130	58	40
DEC			
05...	1245	7	29
JAN			
09...	1100	1	8
FEB			
06...	1040	1	4
MAR			
06...	1015	1	6
APR			
12...	0930	18	34
MAY			
01...	1010	130	110
JUN			
05...	1400	43	200
JUL			
10...	1000	53	160
AUG			
08...	1015	130	220
SEP			
06...	1040	80	160

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
11...	0952	120	14.0	20	6.5	90
NOV						
07...	1130	580	12.0	65	102	40
DEC						
05...	1245	644	7.0	63	110	31
JAN						
09...	1100	604	2.5	12	20	67
FEB						
06...	1040	484	2.5	33	43	33
MAR						
06...	1015	636	5.0	19	33	70
APR						
12...	0930	2440	9.0	45	296	65
MAY						
01...	1010	5980	13.0	668	10800	27
JUN						
05...	1400	6140	16.0	159	2640	82
JUL						
10...	1000	5860	18.5	202	3200	26
AUG						
08...	1015	950	20.5	56	144	67
SEP						
06...	1040	334	19.0	36	32	87

08324000 JEMEZ RIVER NEAR JEMEZ, NM

LOCATION.--Lat 35°39'42", long 106°44'34", Sandoval County, Hydrologic Unit 13020202, in Cañon de San Diego Grant, on left bank 0.7 mi (1.1 km) downstream from Rio Guadalupe, 3.5 mi (5.6 km) north of Jemez, and at mile 29.5 (47.5 km).

DRAINAGE AREA.--470 mi^2 (1,220 km^2).

PERIOD OF RECORD.--June 1936 to May 1941, August 1949 to October 1950, May 1951 to September 1952 (irrigation seasons only), March 1953 to current year. Monthly discharge only for some periods, published in WSP 1732. Published as Jemez Creek near Jemez, 1936-41.

REVISED RECORDS.--WSP 1712: Drainage area. WSP 1923, 1957-58.

GAGE.--Water-stage recorder. Concrete control since Dec. 6, 1965. Datum of gage is 5,622.3 ft (1,713.68 m) National Geodetic Vertical Datum of 1929. June 22, 1936 to Mar. 11, 1937, at site 60 ft (20 m) upstream at datum 0.50 ft (0.152 m) higher. Mar. 12, 1937, to July 8, 1938, at present site at datum 0.7 ft (0.21 m) higher. July 9, 1938, to May 6, 1941, at site 60 ft (20 m) upstream at datum 0.70 ft (0.213 m) higher.

REMARKS.--Records good except those for winter months, and April, which are poor. Diversions for irrigation of about 300 acres (1.2 km^2) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--31 years (water years 1937-40, 1950, 1954-79), 69.5 ft^3/s (1.968 m^3/s), 50,350 acre-ft/yr (62.1 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,900 ft^3/s (167 m^3/s) Apr. 21, 1958, from rating curve extended above 2,200 ft^3/s (62 m^3/s) on basis of contracted-opening measurement; maximum gage height, 8.6 ft (2.62 m), May 6, 1941, present datum; minimum, 4.2 ft^3/s (0.12 m^3/s) Jan. 5, 1972, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1890 occurred between May 6 and 15, 1941, after gage was destroyed (discharge probably exceeded 6,000 ft^3/s or 170 m^3/s), from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Apr. 20	Unknown	*2,260	64.0	8.26	2.518	May 27	0500	1,180	33.4	6.57	2.003

Minimum discharge, 15 ft^3/s (0.42 m^3/s) Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	29	51	27	46	46	156	578	600	88	27	27
2	16	28	53	22	44	50	142	563	560	90	30	22
3	17	49	41	33	42	45	140	555	520	84	33	25
4	18	75	29	38	40	38	131	502	500	79	30	27
5	18	63	45	40	42	40	137	463	476	70	34	22
6	18	46	42	52	42	43	171	462	451	66	33	20
7	17	37	27	44	40	45	255	518	404	67	34	21
8	18	34	20	39	43	60	329	543	442	62	36	22
9	18	33	15	43	42	74	436	544	625	61	35	25
10	18	32	18	43	40	65	415	504	404	56	38	24
11	18	71	22	45	41	68	332	423	330	49	53	22
12	18	114	27	49	43	83	295	396	304	45	43	22
13	18	146	33	40	46	98	297	390	285	39	38	20
14	18	80	32	40	48	114	334	387	267	38	51	25
15	18	63	32	48	55	125	430	424	243	40	107	28
16	19	51	31	52	50	139	603	449	220	49	113	27
17	19	42	30	52	47	155	802	483	185	51	82	24
18	20	39	36	51	47	141	1070	518	160	64	62	19
19	21	38	49	50	53	138	1180	564	142	86	50	20
20	21	37	52	43	59	131	1340	569	133	66	46	22
21	25	38	42	42	54	131	1240	744	123	52	41	24
22	33	38	45	48	54	114	1150	800	116	54	37	27
23	30	39	46	36	50	97	1100	713	108	51	33	28
24	29	54	39	40	49	102	1030	731	102	38	30	27
25	34	325	35	47	43	118	980	747	99	36	27	27
26	33	222	32	47	49	142	885	736	99	37	27	25
27	31	103	31	40	54	161	805	930	97	36	28	21
28	29	58	32	36	45	181	720	860	84	34	29	21
29	28	54	32	45	---	178	687	800	76	34	27	23
30	27	54	34	35	---	161	629	720	76	34	28	21
31	29	---	33	41	---	166	---	680	---	31	28	---
TOTAL	694	2092	1086	1308	1308	3249	18221	18296	8231	1687	1310	709
MEAN	22.4	69.7	35.0	42.2	46.7	105	607	590	274	54.4	42.3	23.6
MAX	34	325	53	52	59	181	1340	930	625	90	113	28
MIN	16	28	15	22	40	38	131	387	76	31	27	19
AC-FT	1380	4150	2150	2590	2590	6440	36140	36290	16330	3350	2600	1410

CAL YR 1978 TOTAL 24728 MEAN 67.7 MAX 384 MIN 14 AC-FT 49050
WTR YR 1979 TOTAL 58191 MEAN 159 MAX 1340 MIN 15 AC-FT 115400

08328500 JEMEZ CANYON RESERVOIR NEAR BERNALILLO, NM

LOCATION.--Lat 35°23'40", long 106°32'50", in SW¼SW¼ sec.32, T.14 N., R.4 E., Sandoval County, Hydrologic Unit 13020202, at corner of outlet works control tower of Jemez Canyon Dam on Jemez River, 2.8 mi (4.5 km) upstream from mouth, and 6 mi (10 km) north of Bernalillo.

DRAINAGE AREA.--1,034 mi² (2,678 km²).

PERIOD OF RECORD.--October 1953 to September 1965 (monthend contents only), October 1965 to current year.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--Reservoir is formed by earthfill dam, completed October 19, 1953. Capacity, 176,200 acre-ft (217 hm³), from capacity table adapted June 1, 1975, between elevations 5,125.0 ft (1,562.10 m) sill of outlet gates and 5,252.3 ft (1,600.90 m) operating deck of spillway. Maximum controlled capacity, 106,100 acre-ft (130 hm³) at elevation 5,232.0 ft or 1,594.71 m (floor of spillway which is located about 0.8 mi or 1.3 km south of dam). Capacity by original survey was 189,100 acre-ft (233 hm³). Original plan for reservoir operation was to desilt all flow above 30 ft³/s (0.85 m³/s) by storage for one day before releasing to Rio Grande, and for possible detention during flood stage on Rio Grande.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 71,220 acre-ft (87.8 hm³) June 8, 1958, elevation, 5,213.36 ft (1,589.032 m); no storage most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 20,250 acre-ft (25.0 hm³) May 2 elevation, 5,186.53 ft (1,580.854 m); no contents for many days.

Capacity tables, (elevation, in feet, and contents, in acre-feet)

5,137	1	5,150	179	5,175	9,540
5,138	2	5,155	811	5,180	13,710
5,140	6	5,160	1,980	5,185	18,620
5,142	13	5,165	3,700	5,190	24,190
5,146	30	5,170	6,180	5,195	30,450

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	0	0	142	0	0	0	613	20060	13830	7220	2500	2280
2	0	0	39	0	0	0	701	20250	14750	7060	2480	2260
3	0	0	0	0	0	0	527	19710	15410	6520	2460	2250
4	0	0	0	0	0	0	464	18730	15580	5890	2450	2240
5	0	0	23	0	0	0	492	17090	15310	5250	2450	2230
6	0	0	0	0	0	0	574	15390	15100	4630	2450	2220
7	0	0	0	0	0	0	701	14080	14750	4010	2440	2220
8	0	0	0	0	0	0	947	13530	14790	3490	2440	2210
9	0	0	0	0	0	0	1270	13480	15300	3090	2430	2200
10	0	0	0	0	0	0	1230	13510	15080	3030	2410	2200
11	0	0	0	0	0	0	935	13530	14650	3000	2400	2180
12	0	0	0	0	0	0	849	13440	13860	3000	2390	2160
13	0	0	0	0	0	0	733	13230	12790	3010	2370	2150
14	0	0	0	0	0	3	636	12680	11740	2990	2390	2130
15	0	0	0	0	0	6	669	11240	10710	2980	3340	2130
16	0	0	0	0	0	0	967	9630	9680	2970	3220	2120
17	0	0	0	0	0	4	1580	8100	8720	2970	2600	2110
18	0	0	0	574	0	1	2760	7370	8210	3020	2570	2090
19	0	0	0	630	0	27	4830	7460	8120	3070	2510	2080
20	0	0	0	373	0	1	6670	7840	8030	3150	2440	2070
21	0	0	0	111	0	17	8210	8520	7950	3200	2440	2070
22	0	0	0	0	0	0	9720	9160	7830	3230	2460	2060
23	0	0	0	0	0	59	11300	9620	7690	3060	2440	2050
24	0	0	0	0	0	204	12860	10100	7560	2650	2410	2050
25	0	194	0	0	0	331	14130	10600	7420	2520	2370	2040
26	0	404	0	0	0	485	15410	11030	7450	2480	2340	2040
27	0	411	0	0	0	631	16520	11750	7460	2460	2320	2030
28	0	359	0	0	0	783	17180	12280	7240	2440	2310	2020
29	0	283	0	0	---	600	18330	12770	7110	2460	2300	2020
30	0	211	0	0	---	506	19270	13110	7170	2520	2290	2010
31	0	---	0	0	---	613	---	13290	---	2510	2280	---
MAX	.00	411	142	630	.00	783	19270	20250	15580	7220	3340	2280
MIN	.00	.00	.00	.00	.00	.00	464	7370	7110	2440	2280	2010
(†)	-	5150.41	-	-	-	5153.85	5185.62	5179.53	5171.60	5161.74	5161.01	5160.10
(‡)	0	+211	-211	0	0	+613	+18660	-5980	-6120	-4660	-230	-270

CAL YR 1978 MAX 1220 MIN .00
WTR YR 1979 MAX 20250 MIN .00

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM

LOCATION.--Lat 35°23'24", long 106°32'03", in NE¼ sec.5, T.13 N., R.4 E., Sandoval County, Hydrologic Unit 13020202, on right bank 0.8 mi (1.3 km) downstream from Jemez Canyon Dam, 2.0 mi (3.2 km) upstream from mouth, and 6 mi (9.6 km) north of Bernalillo.

DRAINAGE AREA.—1,038 mi² (2,688 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1936 to January 1938, March 1943 to current year. Published as "Jemez Creek" prior to 1948, and as "near Bernalillo" prior to 1954.

REVISED RECORDS.--WSP 1178: 1949. WSP 1212: 1950. WSP 1512: 1936, 1943, 1945, 1947-48, 1949(M), 1950. WSP 1732: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 5,095.60 ft (1,553.139 m) National Geodetic Vertical Datum of 1929, from Corps of Engineers bench mark. Prior to Apr. 24, 1951, at site 0.8 mi (1.3 km) upstream at datum 24.51 ft (7.471 m) higher. Apr. 24, 1951, to June 25, 1958, at site 37 ft (11 m) upstream at datum 4.40 ft (1.341 m) above present datum. Supplementary water-stage recorder at gages on Jemez Canyon Dam at datum 5,125.00 ft (1,562.100 m) above mean sea level (Corps of Engineers bench mark) used at times since January 1953.

REMARKS.--Water-discharge records fair. Subsequent to October 1953, flow at this station can be completely regulated by Jemez Canyon Reservoir (station 08328500). However, reservoir is designed essentially for desilting and flood control rather than storage. Diversions for irrigation of about 3,000 acres (12 km²) above station.

AVERAGE DISCHARGE.--37 years (water years 1937, 1944-79), 55.1 ft³/s (1.560 m³/s), 39,920 acre-ft/yr (49.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,300 ft³/s (462 m³/s) Aug. 29, 1943, gage height, 5.62 ft (1.713 m), site and datum then in use, from rating curve extended above 3,000 ft³/s (85.0 m³/s); no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood in 1900 was probably less than 16,000 ft³/s (453 m³/s), but highest observed outside period of record.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,260 ft³/s (121 m³/s) June 25, gage height, 10.60 ft (3.231 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.52	93	4.2	30	41	95	213	250	3.0	1.8	2.2
2	.00	1.5	82	2.0	32	46	172	484	116	37	1.7	1.9
3	.00	6.0	51	.00	42	41	158	994	98	309	1.5	1.5
4	.00	126	13	.00	35	48	65	1190	316	342	1.5	1.2
5	.00	30	24	5.0	35	41	8.2	1560	557	336	1.5	1.1
6	.00	28	28	10	30	39	6.3	1540	548	333	1.3	1.2
7	.00	25	3.4	33	32	45	10	1340	540	328	1.2	1.2
8	.00	17	2.0	26	35	43	35	948	395	321	1.3	1.5
9	.00	12	1.0	15	31	52	180	745	386	224	1.5	1.5
10	.00	10	2.0	28	33	63	417	540	546	40	1.7	1.7
11	.00	12	2.0	40	35	67	404	440	533	26	1.9	1.7
12	.00	58	1.0	38	39	48	250	436	724	8.7	2.0	1.8
13	.00	77	1.0	33	39	63	226	432	867	1.6	2.2	1.7
14	.00	92	2.0	38	53	66	289	600	868	1.4	2.5	1.8
15	.00	73	2.0	45	47	95	304	1220	860	1.5	1.8	1.8
16	.00	68	3.0	48	46	97	344	1380	852	.99	427	1.6
17	.00	52	5.0	50	56	141	459	1340	842	.88	445	1.5
18	.00	34	5.0	213	56	161	466	840	420	1.1	71	1.5
19	.00	24	10	262	55	138	228	400	144	1.3	72	1.3
20	.00	31	19	167	51	152	239	400	137	1.5	72	1.2
21	.00	29	2.7	110	54	149	248	405	134	1.7	30	1.3
22	.00	30	1.7	88	55	138	255	413	130	2.0	14	1.2
23	.00	25	2.3	11	47	51	314	418	125	95	20	1.0
24	.00	41	2.1	12	48	11	205	425	121	216	20	1.0
25	.00	58	2.2	56	52	11	207	425	134	62	19	1.0
26	1.0	72	3.8	71	54	8.7	209	431	27	19	18	1.0
27	4.6	80	3.1	42	48	14	212	436	41	9.8	8.8	1.0
28	3.0	89	6.1	38	49	67	214	440	138	3.0	1.8	1.1
29	2.0	94	8.8	34	---	250	215	446	50	2.6	1.8	1.0
30	1.0	104	12	27	---	162	217	449	5.0	2.1	2.1	1.0
31	1.1	---	21	20	---	112	---	451	---	2.0	2.4	---
TOTAL	12.70	1399.02	415.2	1566.20	1219	2460.7	6651.5	21781	10904.0	2733.17	1250.3	41.5
MEAN	.41	46.6	13.4	50.5	43.5	79.4	222	703	363	88.2	40.3	1.38
MAX	4.6	126	93	262	56	250	466	1560	868	342	445	2.2
MIN	.00	.52	1.0	.00	30	8.7	6.3	213	5.0	.88	1.2	1.0
AC-FT	25	2770	824	3110	2420	4880	13190	43200	21630	5420	2480	82

CAL YR 1978 TOTAL 19427.22 MEAN 53.2 MAX 510 MIN .00 AC-FT 38530
WTR YR 1979 TOTAL 50434.29 MEAN 138 MAX 1560 MIN .00 AC-FT 100000

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1966 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
OCT												
31...	1200	1.3	1640	8.1	18.0	160	0	49	10	270	9.2	16
NOV												
06...	1420	27	1300	7.9	17.0	200	--	67	6.9	200	6.2	11
13...	1630	101	1130	7.9	8.0	--	--	--	--	--	--	--
21...	0850	28	1220	8.5	6.0	--	--	--	--	--	--	--
27...	1535	78	640	8.1	3.0	--	--	--	--	--	--	--
JAN												
11...	0935	7.2	1400	8.3	.0	200	0	65	9.0	230	7.1	13
15...	1420	27	1310	8.1	.0	--	--	--	--	--	--	--
22...	1630	95	1900	7.9	2.0	--	--	--	--	--	--	--
29...	1505	31	1710	8.1	.0	--	--	--	--	--	--	--
FEB												
05...	1240	28	1690	8.1	1.0	270	35	88	11	250	6.7	12
12...	1500	25	1890	7.9	9.0	--	--	--	--	--	--	--
20...	--	51	1370	8.3	10.5	--	--	--	--	--	--	--
26...	1155	40	1140	8.3	5.0	--	--	--	--	--	--	--
MAR												
05...	--	57	1050	8.2	11.0	210	29	71	7.6	150	4.5	11
19...	1455	45	748	8.2	9.5	--	--	--	--	--	--	--
APR												
02...	1545	218	701	8.2	7.0	--	--	--	--	--	--	--
09...	0950	118	537	8.0	15.0	110	8	36	4.5	61	2.6	5.9
16...	1420	368	414	8.0	16.0	110	25	36	4.0	43	1.8	5.1
23...	1310	253	336	8.0	8.0	--	--	--	--	--	--	--
30...	1445	210	342	7.8	12.5	--	--	--	--	--	--	--
MAY												
07...	1425	1150	324	7.9	17.0	86	16	29	3.4	30	1.4	4.3
13...	1405	432	348	7.9	10.5	--	--	--	--	--	--	--
21...	1335	408	343	7.7	16.0	--	--	--	--	--	--	--
JUN												
05...	1400	550	390	7.8	16.5	89	18	30	3.4	42	1.9	4.2
11...	--	533	368	8.1	18.0	--	--	--	--	--	--	--
25...	1550	91	421	8.0	19.0	--	--	--	--	--	--	--
JUL												
02...	1335	2.0	808	8.3	26.0	180	0	58	8.2	98	3.2	6.4
16...	1415	.75	1320	8.3	29.0	--	--	--	--	--	--	--
23...	1300	2.2	1530	8.3	26.5	--	--	--	--	--	--	--
AUG												
07...	1010	1.2	994	8.1	23.0	210	1	68	9.9	150	4.5	8.5
28...	1100	1.8	1180	8.4	20.0	--	--	--	--	--	--	--
SEP												
04...	1640	1.2	1300	8.3	23.0	250	48	81	11	180	5.0	8.9
10...	1245	1.7	1270	8.4	21.0	--	--	--	--	--	--	--
17...	1300	1.5	1240	8.3	19.0	--	--	--	--	--	--	--
24...	1250	1.0	1250	8.1	21.5	--	--	--	--	--	--	--

08329000 JEMEZ RIVER BELOW JEMEZ CANYON DAM, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT											
31...	250	180	260	1.6	33	1010	970	.43	.04	1700	10
NOV											
06...	170	230	170	1.1	24	--	812	.29	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
JAN											
11...	230	210	200	1.2	37	--	905	.27	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
FEB											
05...	230	280	230	1.2	31	--	1040	.14	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
MAR											
05...	180	140	150	1.1	30	--	669	.12	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
APR											
02...	--	--	--	--	--	--	--	--	--	--	--
09...	100	69	48	.5	28	--	313	.03	--	--	--
16...	81	60	30	.4	24	--	252	.09	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
MAY											
07...	70	51	22	.3	22	214	205	.06	.03	140	10
13...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
JUN											
05...	71	63	31	.3	19	--	236	.01	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JUL											
02...	180	130	75	.5	25	--	509	.00	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
AUG											
07...	210	160	120	.6	29	--	672	.04	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
SEP											
04...	200	260	140	.8	23	--	825	.02	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT				
31...	1200	59	1700	10
MAY				
07...	1425	8	140	10

08329900 NORTH FLOODWAY CHANNEL NEAR ALAMEDA, NM

LOCATION.--Lat 35°11'58", long 106°35'53", Bernalillo County, Hydrologic Unit 13020203, in Elena Gallegos Grant, on left bank 0.5 mi (0.8 km) upstream from Edith Blvd., 1.1 mi (1.8 km) upstream from mouth, and 1.2 mi (1.9 km) northeast of Alameda.

PERIOD OF RECORD.--July 1968 to current year (no winter records).

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 5,015 ft (1,529 m), from Corps of Engineers plan and profile map.

REMARKS.--Records fair. Floodway channel intercepts flow of numerous arroyos in northeast Albuquerque and discharges into the Rio Grande at a point 1.6 mi (2.6 km) north of Alameda.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft³/s (142 m³/s) July 26, 1971, gage height, 6.30 ft (1.920 m) from rating curve extended above 2,900 ft³/s (82 m³/s); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,730 ft³/s (106 m³/s) Aug. 16, gage height, 5.20 ft (1,585 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00				---	.00	15	.00	.00	.00
2	.00	.00	---				---	.00	44	.00	.00	.00
3	.00	156	---				---	99	43	.00	.00	.00
4	.00	.00	---				---	2.7	30	.00	.00	.00
5	.00	.00	---				---	.00	15	.00	21	.00
6	.00	.00	---				---	.00	.00	9.0	.00	.00
7	.00	.00	---				---	.00	.00	21	.00	.00
8	.00	.00	---				---	.00	285	.00	74	22
9	.00	.00	---				---	83	18	.00	22	4.0
10	.00	.00	---				---	12	.00	.00	29	.00
11	.00	81	---				---	4.5	.00	.00	30	20
12	.00	17	---				---	.00	.00	.00	14	10
13	.00	.00	---				---	.00	.00	.00	.00	.00
14	.00	.00	---				---	.00	.00	.00	54	.00
15	.00	.00	---				---	.00	.00	12	341	51
16	.00	17	---				.00	.00	.00	185	171	.00
17	.00	.00	---				.00	.00	.00	47	16	.00
18	.00	.00	---				.00	.00	.00	.00	.00	9.0
19	.00	.00	---				.00	.00	.00	.00	16	.00
20	.00	.00	---				.00	352	.00	.00	15	.00
21	141	.00	---				.00	21	.00	.00	.00	63
22	4.6	.00	---				.00	34	.00	.00	.00	.00
23	30	.00	---				.00	.00	.00	.00	.00	.00
24	11	54	---				.00	.00	.00	.00	.00	.00
25	88	51	---				.00	40	.00	.00	.00	.00
26	15	.00	---				.00	.00	.00	.00	.00	.00
27	.00	.00	---				.00	.00	.00	.00	.00	.00
28	.00	.00	---				.00	.00	.00	.00	.00	.00
29	.00	.00	---				.00	.00	.00	.00	.00	.00
30	3.6	.00	---				16	.00	6.7	.00	.00	.00
31	8.6	---	---				---	.00	---	.00	25	---
TOTAL	301.80	376.00	---				---	648.20	456.70	274.00	828.00	179.00
MEAN	9.74	12.5	---				---	20.9	15.2	8.84	26.7	5.97
MAX	141	156	---				---	352	285	185	341	63
MIN	.00	.00	---				---	.00	.00	.00	.00	.00
AC-FT	599	746	---				---	1290	906	543	1640	355

08330000 RIO GRANDE AT ALBUQUERQUE, NM

LOCATION.--Lat 35°05'21", long 106°40'48", Bernalillo County, Hydrologic Unit 13020203, in Atrisco Grant, at downstream side of Old Town Bridge on U.S. Highway 66 at Albuquerque, and at mile 1,540.0 (2,477.9 km).

DRAINAGE AREA.--17,440 mi^2 (45,170 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1941 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1312: 1946(M).

GAGE.--Water-stage recorder. Datum of gages is 4,946.16 ft (1,507.590 m) National Geodetic Vertical Datum of 1929. Prior to Sept. 18, 1947, at various sites at datum about 2.00 ft (0.610 m) higher; Sept. 18, 1947, to Apr. 12, 1959, at site 550 ft (170 m) to the left of present site; Apr. 13, 1959, to June 29, 1960, at site 150 ft (46 m) to right of present site. Supplemental water-stage recorders at sites 75 ft (23 m) and 150 ft (46 m) to right of present site used at various times since 1964.

REMARKS.--Water-discharge records good. Flow completely regulated since November 1973 by Cochiti Dam (station 08317300) 50 mi (80 km) upstream. Possible regulation by operation of reservoirs on Rio Chama and by flood-and-silt-detention reservoirs on Galisteo Creek and Jemez River (stations 08285000, 08286900, 08317900, 08328500). Since May 1971 flow affected by release of transmountain water from Heron Reservoir (station 08284510). Diversions above station for irrigation of about 718,000 acres (2,900 km^2), several hundred of which are below station. National Weather Service gage height telemeter at station.

COOPERATION.--Records for Albuquerque Riverside drain and Arenal, Armijo, and Atrisco canals furnished by Middle Rio Grande Conservancy District.

AVERAGE DISCHARGE.--32 years (water years 1942-73), 1,068 ft^3/s (30.25 m^3/s), 773,800 acre-ft/yr (0.95 km^3/yr) prior to closure of Cochiti Dam.

6 years (calendar years 1974-79), 1,076 ft^3/s (30.47 m^3/s), 779,600 acre-ft/yr (0.96 km^3/yr) since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,000 ft^3/s (708 m^3/s) Apr. 24, 1942, from rating curve extended above 13,900 ft^3/s (394 m^3/s); maximum gage height, 7.82 ft (2.384 m) Aug. 10, 1967; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,650 ft^3/s (245 m^3/s) June 1, gage height, 6.97 ft (2.124 m); minimum daily, 1.0 ft^3/s (0.03 m^3/s) Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.5	535	767	856	536	775	2370	5510	7870	5400	1470	180
2	7.5	569	767	530	647	753	1860	5490	5500	5420	1480	130
3	6.0	714	742	506	647	732	2270	6210	5340	5660	1270	110
4	9.0	970	663	458	791	743	1830	5830	5880	5860	1060	108
5	22	1030	678	405	738	939	1680	5530	6370	5920	874	84
6	15	907	667	566	618	859	1270	5600	6430	5890	757	50
7	13	683	573	632	525	657	1360	5600	6550	5670	643	107
8	7.5	515	612	721	605	651	1180	5670	7040	5820	552	730
9	12	584	581	722	731	1080	1710	5970	5360	5770	434	775
10	8.0	605	475	571	750	1970	2220	5940	6390	5440	503	510
11	12	656	310	508	732	2030	2590	6040	6320	5660	602	482
12	2.9	724	316	569	824	1490	2330	5730	6540	5700	674	566
13	2.9	811	683	672	759	1470	2460	5980	6810	5420	575	538
14	6.0	879	980	622	683	1470	3020	5850	6910	5890	608	566
15	11	735	1050	590	755	1920	3130	5600	6670	5620	1090	658
16	15	733	1040	583	1050	2340	2770	5410	6540	5340	2900	608
17	5.0	833	1100	604	1210	2620	2850	5270	6730	6010	3010	566
18	2.9	797	864	1090	1060	2930	3730	4960	6310	5620	1420	538
19	2.0	850	909	1140	980	3570	4540	4760	5710	5900	1300	552
20	1.0	805	1250	1330	886	2640	5200	5600	5770	5580	1450	396
21	2.0	692	1400	1060	913	1600	5440	5620	5460	5500	1440	130
22	10	629	1170	949	1030	1470	5480	5890	5570	5520	1180	108
23	33	616	909	722	966	1390	5200	5930	5430	5300	910	57
24	72	670	690	667	885	1530	5920	5900	5320	5640	739	38
25	85	687	618	696	832	1570	6080	6090	5740	5570	682	28
26	122	1090	590	707	871	1370	5480	6230	5560	5480	643	19
27	174	1080	597	730	797	2460	6040	6150	5520	5440	594	21
28	287	856	582	751	778	2390	6160	6460	5590	5120	573	20
29	340	845	587	652	---	2450	6040	6660	5560	4500	410	22
30	292	791	756	582	---	2700	5680	6850	5280	3810	300	21
31	372	---	841	577	---	2640	---	7370	---	3130	250	---
TOTAL	1959.2	22891	23767	21768	22599	53209	107890	181700	182070	168600	30393	8718
MEAN	63.2	763	767	702	807	1716	3596	5861	6069	5439	980	291
MAX	372	1090	1400	1330	1210	3570	6160	7370	7870	6010	3010	775
MIN	1.0	515	310	405	525	651	1180	4760	5280	3130	250	19
AC-FT	3890	45400	47140	43180	44830	105500	214000	360400	361100	334400	60280	17290
(†)	13480	2070	1820	1040	904	1470	10260	15260	16500	18730	17710	21370

CAL YR 1978 TOTAL 287592.2 MEAN 788 MAX 4320 MIN 1.0 AC-FT 570400 (†) 125100
WTR YR 1979 TOTAL 825564.2 MEAN 2262 MAX 7870 MIN 1.0 AC-FT 1638000 (†) 120600

† COMBINED FLOW, IN ACRE-FT, OF ALBUQUERQUE RIVERSIDE DRAIN, AND ARENAL, ARMIJO, AND ATRISCO CANALS. THIS FLOW WHICH BYPASSES RIVER GAGE, CAN BE ADDED TO RIVER RECORDS TO GET ENTIRE SURFACE FLOW IN VALLEY CROSS-SECTION.

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1969 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1969 to current year.
WATER TEMPERATURES: October 1969 to current year.
SUSPENDED SEDIMENT DISCHARGES: May 1969 to September 1969 (partial-record station), October 1969 to current year.

REMARKS.--Additional sediment total discharge determination were made bi-weekly when needed.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum, 1,840 micromhos Oct. 12, 1974; minimum daily 133 microhmos July 21, 1971.
WATER TEMPERATURES: Maximum, 34.0°C July 12, 1970; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 45,500 mg/L July 21, 1971; minimum daily, no flow on many days in 1971, 1972, and 1977.
SEDIMENT LOADS: Maximum daily, 275,000 tons (249,000 tonnes) July 27, 1971; minimum daily; 0 tons (0 tonnes) on many days in 1971, 1972, and 1977.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 795 micromhos Jan. 22; minimum daily, 195 micromhos July 13.
WATER TEMPERATURES: Maximum, 22.0°C Aug. 14; minimum, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 10,900 mg/L Aug. 16; minimum daily, 31 mg/L Oct. 12.
SEDIMENT LOADS: Maximum daily, 103,000 tons (93,400 tonnes) June 9; minimum daily, .09 tons (.08 tonnes) Oct. 20.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)
OCT									
02...	0949	8.2	16.5	35	.80	--	--	--	--
NOV									
06...	1106	924	14.0	1550	3870	54	62	74	--
27...	1100	1150	7.5	1720	5340	31	40	61	76
DEC									
18...	1118	858	4.0	797	1850	--	--	--	27
JAN									
08...	1441	720	4.0	381	741	26	31	43	68
19...	1100	1150	2.0	5600	17400	65	75	92	--
22...	1222	964	4.0	912	2370	49	56	64	74
FEB									
05...	1111	823	2.0	540	1200	30	36	49	65
26...	1000	922	4.5	505	1260	22	27	38	56
MAR									
12...	0700	1530	3.0	756	3120	27	31	38	78
14...	1530	1410	12.0	954	3630	14	16	23	47
APR									
02...	1234	1840	10.0	782	3890	--	--	--	29
23...	1242	4980	15.0	2110	28400	6	7	9	22
29...	1300	6120	16.0	753	12400	--	--	--	66
MAY									
14...	1330	5760	15.5	2100	32700	4	4	5	13
29...	1224	6610	18.0	2000	35700	7	8	10	17
JUN									
18...	1200	6920	17.5	1820	34000	4	5	6	13
JUL									
09...	1109	6040	20.0	2030	33100	1	1	2	6
AUG									
13...	1100	588	21.5	514	816	34	44	59	65
16...	1200	3280	21.0	13900	123000	56	62	88	98
SEP									
10...	1130	521	20.0	137	193	--	--	--	--
24...	0930	40	17.5	41	4.4	--	--	--	--

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM (70347)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT									
02...	--	--	--	--	--	92	96	99	100
NOV									
06...	--	--	--	--	--	85	89	98	100
27...	82	92	98	100	--	--	--	--	--
DEC									
18...	33	60	95	100	--	--	--	--	--
JAN									
08...	77	97	100	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--
22...	78	95	100	--	--	97	98	100	--
FEB									
05...	70	94	100	--	--	--	--	--	--
26...	65	91	100	--	--	--	--	--	--
MAR									
12...	87	100	--	--	--	--	--	--	--
14...	59	87	100	--	--	--	--	--	--
APR									
02...	48	90	100	--	--	--	--	--	--
23...	42	82	100	--	--	--	--	--	--
29...	91	99	100	--	--	--	--	--	--
MAY									
14...	29	72	98	100	--	--	--	--	--
29...	32	77	100	--	--	--	--	--	--
JUN									
18...	27	72	96	100	--	--	--	--	--
JUL									
09...	19	78	98	100	--	--	--	--	--
AUG									
13...	67	74	81	99	100	--	--	--	--
16...	99	100	--	--	--	--	--	--	--
SEP									
10...	--	--	--	--	--	77	82	98	100
24...	--	--	--	--	--	91	92	99	100

PARTICLE SIZE OF SURFACE BED METERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)
OCT								
02...	0949	8.2	35	.80	0	1	27	80
NOV								
06...	1106	924	1550	3870	1	3	51	95
27...	1100	1150	1720	5340	1	3	50	86
DEC								
18...	1118	858	797	1850	1	2	39	82
JAN								
08...	1441	720	381	741	2	9	52	95
22...	1222	964	912	2370	1	2	36	88
FEB								
05...	1111	823	540	1200	2	8	48	86
26...	1000	922	505	1260	1	4	53	94
MAR								
14...	1530	1410	954	3630	1	4	64	98
APR								
02...	1234	1840	782	3090	0	2	44	89
23...	1242	4980	2110	28400	1	2	31	72
MAY								
14...	1330	5760	2100	32700	1	2	23	62
29...	1224	6610	2000	35700	1	2	24	59
JUN								
18...	1200	6920	1820	34000	0	2	21	53
JUL								
09...	1109	6040	2030	33100	1	2	29	60
AUG								
13...	1100	588	514	816	0	0	30	79
SEP								
10...	1130	521	137	193	0	1	34	85
24...	0930	40	41	4.4	1	2	39	76

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
OCT								
02...	--	--	91	96	99	100	--	--
NOV								
06...	99	100	--	--	--	--	--	--
27...	--	--	92	97	98	99	100	--
DEC								
18...	--	--	90	93	95	97	98	100
JAN								
08...	100	--	--	--	--	--	--	--
22...	99	100	--	--	--	--	--	--
FEB								
05...	98	100	--	--	--	--	--	--
26...	100	--	--	--	--	--	--	--
MAR								
14...	100	--	--	--	--	--	--	--
APR								
02...	97	100	--	--	--	--	--	--
23...	--	--	81	86	88	91	95	100
MAY								
14...	--	--	77	84	86	88	92	100
29...	--	--	70	82	87	89	92	100
JUN								
18...	--	--	66	72	76	80	84	100
JUL								
09...	--	--	82	90	93	95	98	100
AUG								
13...	97	--	--	98	100	--	--	--
SEP								
10...	97	--	--	98	99	99	99	100
24...	91	--	--	95	97	99	100	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT DISCH. TOTAL, SUSP.+ BEDLOAD (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC-ITY, MEAN (FPS) (00055)
NOV									
06...	1106	924	14.0	1550	3870	4230	270	1.7	2.0
27...	1100	1150	7.5	1720	5340	5680	270	1.8	2.3
DEC									
18...	1118	858	4.0	797	1850	2880	250	1.6	2.1
JAN									
08...	1441	720	4.0	381	741	1080	260	1.5	1.8
22...	1222	964	4.0	912	2370	2840	260	1.6	2.3
FEB									
05...	1111	823	2.0	540	1200	1260	217	1.5	2.6
26...	1000	922	4.5	505	1260	1310	310	1.4	2.1
APR									
02...	1234	1840	10.0	782	3890	6490	275	2.2	3.0
23...	1242	4980	15.0	2110	28400	34900	285	4.0	4.4
MAY									
29...	1224	6610	18.0	2000	35700	49300	275	5.0	4.8
JUN									
18...	1200	6920	17.5	1820	34000	45900	290	4.9	4.9
JUL									
09...	1109	6040	20.0	2030	33100	50000	302	4.3	4.6
AUG									
13...	1100	588	21.5	514	816	1070	220	1.4	1.9
SEP									
10...	1130	521	20.0	137	193	502	180	1.3	2.3
24...	0930	40	17.5	41	4.4	6.7	84	.43	1.1

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	450	321	440	459	427	448	381	296	216	200	247	315
2	462	310	455	411	464	465	401	282	221	203	242	310
3	470	318	453	423	505	475	401	294	223	212	243	---
4	453	350	468	419	459	488	416	296	210	214	250	325
5	444	647	413	422	491	449	436	300	218	214	253	338
6	435	360	418	420	503	450	417	296	225	216	254	326
7	448	330	444	489	431	459	419	303	222	213	255	356
8	---	450	416	441	470	470	415	284	228	211	258	280
9	470	439	438	428	480	474	428	271	375	210	263	280
10	462	425	440	431	496	440	412	265	237	201	264	289
11	450	405	452	452	492	418	455	269	242	198	268	309
12	473	385	449	448	464	427	477	260	241	198	312	295
13	510	520	409	452	444	438	422	255	230	195	278	305
14	474	455	388	435	547	442	425	259	226	198	280	297
15	---	435	393	423	580	437	---	273	221	197	240	292
16	---	450	419	436	507	424	411	273	221	200	520	300
17	---	435	412	429	470	427	407	273	221	203	740	307
18	---	420	412	369	450	417	412	278	224	200	464	311
19	---	415	444	776	467	406	413	243	210	207	410	307
20	---	407	470	764	445	400	396	227	210	---	348	300
21	---	425	478	767	---	422	391	240	206	---	337	310
22	340	430	402	795	---	423	355	239	203	---	280	328
23	341	438	415	595	---	426	384	236	204	---	302	360
24	333	420	435	435	---	387	343	244	205	---	310	365
25	342	425	433	403	---	373	353	311	203	---	312	392
26	338	505	440	479	441	373	342	251	206	210	312	382
27	340	398	436	506	436	358	312	---	202	212	310	405
28	321	400	428	482	450	340	303	223	208	210	382	388
29	316	402	427	447	---	373	300	220	205	213	297	373
30	322	415	424	476	---	408	297	212	205	219	292	363
31	315	---	439	405	---	367	---	207	---	225	303	---
MEAN	405	418	432	488	475	423	390	263	222	207	317	328

WTR YR 1979 MEAN 364 MAX 795 MIN 195

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.0	11.0	6.0	1.0	1.0	5.0	7.0	13.0	15.0	17.0	19.0	21.0
2	16.5	11.0	7.0	1.0	1.0	5.0	10.0	13.0	16.0	17.0	20.0	21.0
3	15.0	10.0	6.0	2.0	1.0	4.0	6.0	12.0	12.0	18.0	20.0	---
4	16.0	11.0	3.0	1.0	1.0	5.0	5.0	14.0	15.0	18.0	21.0	20.0
5	17.0	12.0	5.0	1.0	1.0	2.0	7.0	15.0	15.0	19.0	20.0	20.0
6	16.0	8.0	4.0	1.0	.0	5.0	8.0	14.0	14.0	19.0	20.0	19.0
7	17.0	11.0	2.0	2.0	2.0	6.0	8.0	12.0	16.0	19.0	20.0	19.0
8	---	10.0	1.0	4.0	4.0	6.0	12.0	13.0	15.0	19.0	20.0	21.0
9	15.0	9.0	2.0	1.0	6.0	6.0	5.0	12.0	16.0	19.0	20.0	20.0
10	16.0	9.0	2.0	1.0	5.0	5.0	5.0	12.0	14.0	19.0	19.0	21.0
11	16.0	8.0	.0	2.0	4.0	10.0	7.0	13.0	15.0	20.0	20.0	21.0
12	17.0	9.0	2.0	3.0	4.0	3.0	5.0	14.0	16.0	20.0	19.0	21.0
13	15.0	6.0	1.0	2.0	6.0	4.0	7.0	13.0	16.0	20.0	21.0	19.0
14	16.0	8.0	2.0	3.0	3.0	6.0	12.0	15.5	16.0	20.0	22.0	18.0
15	---	7.0	2.0	1.0	6.0	7.0	---	13.0	17.0	15.0	20.0	18.0
16	---	7.0	4.0	2.0	2.0	3.0	7.0	13.0	17.0	20.0	21.0	19.0
17	---	8.0	2.0	2.0	4.0	7.0	13.0	13.0	17.0	20.0	19.0	17.0
18	---	7.0	4.0	3.0	6.0	5.0	12.0	14.0	17.5	20.0	21.0	17.0
19	---	8.0	2.0	2.0	3.0	4.0	13.0	15.0	16.0	20.0	22.0	18.0
20	---	6.0	2.0	3.0	3.0	6.0	14.0	13.0	17.0	---	20.0	18.0
21	---	8.0	2.0	3.0	---	4.0	14.0	12.0	17.0	---	21.0	19.0
22	15.0	9.0	2.0	4.0	---	5.0	14.0	13.0	17.0	---	20.0	19.0
23	13.0	8.0	3.0	1.0	---	6.0	15.0	14.0	17.0	---	20.0	18.0
24	12.0	6.0	3.0	1.0	---	7.0	13.0	13.0	18.0	---	19.0	17.0
25	12.0	9.0	1.0	.0	---	6.0	14.0	14.0	17.0	---	21.0	18.0
26	11.0	8.0	2.0	1.0	4.5	4.0	14.0	13.0	18.0	21.0	21.0	17.0
27	11.0	5.0	2.0	2.0	4.0	7.0	15.0	---	18.0	20.0	20.0	18.0
28	12.0	7.0	3.0	3.0	10.0	7.0	15.0	12.0	19.0	20.0	21.0	17.0
29	11.0	7.0	3.0	.0	---	8.0	16.0	16.0	18.0	21.0	20.0	19.0
30	10.0	7.0	2.0	.0	---	7.0	11.0	15.0	18.0	20.0	20.0	18.0
31	11.0	---	3.0	.0	---	6.0	---	16.0	---	21.0	21.0	---
MEAN	14.0	8.5	2.5	1.5	3.5	5.5	10.5	13.5	16.5	19.5	20.5	19.0

WTR YR 1979 MEAN 11.0 MAX 22.0 MIN .0

08330000 RIO GRANDE AT ALBUQUERQUE, NM -- Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	39	1.0	681	984	285	590	413	955	179	259	378	791
2	43	.87	466	716	265	549	305	436	356	622	259	527
3	61	.99	2360	7030	311	623	157	214	479	837	355	702
4	36	.87	5190	13600	522	934	105	130	287	613	490	983
5	55	3.3	5750	16000	339	621	98	107	507	1010	401	1020
6	84	3.4	1530	3750	247	445	221	338	451	753	313	726
7	64	2.2	749	1380	187	289	320	546	193	274	225	399
8	56	1.1	605	841	196	324	340	662	377	616	245	431
9	66	2.1	508	801	246	386	285	556	669	1320	1130	4100
10	57	1.2	519	848	240	308	199	307	598	1210	2790	14800
11	66	2.1	560	992	117	98	235	322	462	913	1460	8000
12	31	.24	632	1240	122	104	285	438	640	1420	720	2900
13	44	.34	2030	4450	378	697	336	610	354	725	575	2280
14	62	1.0	1480	3510	517	1370	256	430	567	1050	700	2780
15	54	1.6	990	1960	555	1570	172	274	890	1810	898	4660
16	50	2.0	750	1480	481	1350	176	277	1390	3940	840	5310
17	37	.50	600	1350	518	1540	223	364	1150	3760	1080	7640
18	43	.34	455	979	561	1310	1650	4900	601	1720	1470	11600
19	38	.21	420	964	312	766	4700	14500	553	1460	2730	26300
20	34	.09	377	819	597	2010	3060	11000	409	978	1340	9550
21	33	.18	375	701	760	2870	1310	3750	348	858	820	3540
22	35	.95	325	552	475	1500	770	1970	400	1110	575	2280
23	59	5.3	340	565	340	834	1260	2460	385	1000	437	1640
24	65	13	550	995	286	533	251	452	384	918	402	1660
25	50	11	522	968	218	364	225	423	437	982	388	1640
26	112	37	2210	6500	246	392	271	517	480	1130	368	1360
27	80	38	1690	4930	249	401	567	1120	325	699	1170	7770
28	551	427	770	1780	294	462	411	833	334	702	990	6390
29	431	396	467	1070	494	783	261	459	---	---	804	5320
30	247	195	322	688	515	1050	235	369	---	---	961	7010
31	522	524	---	---	448	1020	335	522	---	---	918	6540
TOTAL	---	1672.88	---	82443	---	26093	---	50241	---	32689	---	150649

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	924	5910	720	10700	710	15100	272	3970	125	496	214	104
2	798	4010	715	10600	752	11200	295	4320	131	523	135	47
3	848	5200	703	11800	850	12300	456	6970	101	346	101	30
4	502	2480	655	10300	1050	16700	380	6010	90	258	83	24
5	446	2020	600	8960	597	10300	354	5660	87	205	81	18
6	238	816	595	9000	523	9080	292	4640	77	157	64	8.6
7	318	1170	1980	29900	498	8810	312	4780	70	122	189	84
8	235	749	603	9230	3010	60800	345	5420	84	125	401	790
9	547	2530	620	9990	6800	103000	1060	16500	65	76	259	542
10	730	4380	546	8760	1950	33600	247	3630	139	189	135	186
11	1190	8320	571	9310	798	13600	238	3640	2090	4720	161	210
12	1030	6480	575	8900	675	11900	250	3850	4110	7480	193	295
13	922	6120	558	9010	582	10700	265	3880	460	714	115	167
14	790	6440	1500	23700	470	8770	235	3740	350	575	119	182
15	702	5930	547	8270	435	7830	212	3220	2510	8330	135	240
16	683	5110	393	5740	460	8120	220	3170	10900	90900	114	187
17	575	4420	352	5010	542	9850	430	6980	4250	39200	103	157
18	805	8110	475	6360	1820	31000	382	5800	500	1920	97	141
19	918	11300	430	5530	643	9910	391	6230	363	1270	112	167
20	1000	14000	3110	52700	430	6700	375	5650	368	1440	87	93
21	1310	19200	4500	68300	374	5510	301	4470	330	1280	96	34
22	865	12800	580	9220	362	5440	244	3640	220	701	80	23
23	1370	19200	495	7930	362	5310	215	3080	172	423	54	8.3
24	945	15100	553	8810	372	5340	188	2860	160	319	45	4.6
25	940	15400	1430	23500	337	5220	167	2510	142	261	58	4.4
26	790	11700	740	12400	335	5030	158	2340	136	236	50	2.6
27	890	14500	890	14800	303	4520	158	2320	128	205	107	6.1
28	872	14500	1200	20900	372	5610	148	2050	3720	5760	99	5.3
29	770	12600	1770	31800	404	6060	145	1760	614	680	88	5.2
30	872	13400	840	15500	349	4980	140	1440	288	233	79	4.5
31	---	---	1030	20500	---	---	122	1030	368	248	---	---
TOTAL	---	253895	---	487430	---	452290	---	135560	---	169392	---	3770.6

TOTAL LOAD FOR YEAR: 1846125.48 TONS.

08330600 TIJERAS ARROYO NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'04", long 106°39'18", in SW¼SW¼ sec. 17, T.9 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on right bank 875 ft (267 m) downstream from highway bridge on Broadway Boulevard SE, 1,760 ft (536 m) upstream from South Diversion Channel, 0.5 mi (0.8 km) downstream from highway bridge on Interstate Highway 25, and 3 mi (5 km) south of Albuquerque.

DRAINAGE AREA.--133 mi² (344 km²).

PERIOD OF RECORD.--October 1951 to September 1968, (annual maximum only), August 1974 to current year.

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 4,961 ft (1,512 m), from Corps of Engineers plan and profile map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,530 ft³/s (71.6 m³/s) June 24, 1967, (gage height not determined); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 295 ft³/s (8.35 m³/s) Aug. 17, gage height, 1.35 ft (0.411 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	6.0	.00				.00	.00	2.9	.00	.00	.00
2	.00	.00	---				.00	.00	.00	.00	.00	.00
3	.00	15	---				.00	.00	.00	.00	.00	.00
4	.00	5.0	---				.00	.00	.00	.00	.00	.00
5	.00	6.7	---				.00	.00	.00	.00	.00	.00
6	.00	.00	---				.00	.00	.00	.00	.00	.00
7	.00	.00	---				.00	.00	.00	1.0	.00	.00
8	.00	.00	---				.00	.00	11	.00	.00	.00
9	.00	.00	---				.00	2.6	13	.00	1.4	.00
10	.00	.00	---				.00	.00	.00	.00	.00	.00
11	.00	9.0	---				.00	.00	.00	.00	.00	.00
12	.00	17	---				.00	.00	.00	.00	6.0	.00
13	.00	.00	---				.00	.00	.00	.00	.00	.00
14	.00	.00	---				.00	.00	.00	.00	.00	.00
15	.00	.00	---				.00	.00	.00	.00	30	.67
16	.00	.00	---				.00	.00	.00	.00	3.3	.00
17	.00	.00	---				.00	.00	.00	9.5	40	.00
18	.00	.00	---				.00	.00	.00	.00	.40	.00
19	.00	.00	---				.00	.00	.00	.00	.42	.00
20	.00	.00	---				.00	19	.00	.00	.58	.00
21	4.0	.00	---				.00	12	.00	.00	.00	.58
22	5.5	.00	---				.00	.00	.00	.00	.00	.00
23	1.5	.00	---				.00	.00	.00	.00	.00	.00
24	.00	6.4	---				.00	.00	.00	.00	.00	.00
25	4.0	7.0	---				.00	.00	.00	.00	.00	.00
26	.00	.00	---				.00	10	.00	.00	.50	.00
27	12	.00	---				.00	.00	.00	.00	.00	.00
28	3.0	.00	---				.00	.00	.00	.00	.00	.00
29	.00	.00	---				.00	.00	.00	.00	.00	.00
30	7.3	.00	---				.00	.00	.00	.00	.00	.00
31	6.7	---	---				---	.00	---	.00	.00	---
TOTAL	44.00	72.10	---				.00	43.60	26.90	10.50	82.60	1.25
MEAN	1.42	2.40	---				.000	1.41	.90	.34	2.66	.042
MAX	12	17	---				.00	19	13	9.5	40	.67
MIN	.00	.00	---				.00	.00	.00	.00	.00	.00
AC-FT	87	143	---				.00	86	53	21	164	2.5

RIO GRANDE BASIN

08330600 TIJERAS ARROYO NEAR ALBUQUERQUE, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--August 1979 to September 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
AUG										
15...	1105	106	400	7.9	19.0	480	140	60	46	5.2

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
AUG										
15...	19	.7	2.8	76	.15	15	.5	4.4	183	11

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
AUG										
15...	10	.02	2.4	13	10.0	.00	80	0	150	5.7

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)
AUG					
15...	1105	80	0	730	0

08330800 TIJERAS ARROYO BELOW SOUTH DIVERSION CHANNEL INLET NEAR ALBUQUERQUE, NM

LOCATION.--Lat 35°00'09", long 106°39'41", in SW¼SE¼ sec. 18, T.9 N., R.3 E., Bernalillo County, Hydrologic Unit 13020203, on left bank 260 ft (79 m) upstream from highway bridge on State Highway 47, 500 ft (152 m) downstream from South Diversion Channel inlet, 1.0 mi (1.6 km) downstream from highway bridge on Interstate Highway 27 and 2.5 mi (4.0 km) south of Albuquerque.

PERIOD OF RECORD.--July 1974 to current year.

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 4,933 ft (1,504 m), from Corps of Engineers plan and profile map.

REMARKS.--Records poor. South Diversion Channel intercepts flow of numerous arroyos in northeast and southeast Albuquerque and discharges into Tijeras Arroyo at a point 0.8 mi (1.3 km) upstream from the Rio Grande.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,450 ft^3/s (41.1 m^3/s) Aug. 19, 1976, gage height, (not determined); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 280 ft^3/s (7.93 m^3/s) Aug. 17, gage height, 1.30 ft (0.396 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	13	.00				.00	.00	3.0	.00	.00	.00
2	.00	.00	---				.00	.00	.00	.00	.00	.00
3	.00	16	---				.00	.00	.00	.00	.00	.00
4	.00	13	---				.00	.00	.00	.00	.00	.00
5	.00	13	---				.00	.00	.00	.00	.00	.00
6	.00	14	---				.00	.00	.00	.00	.00	.00
7	.00	9.0	---				.00	.00	.00	1.0	.00	.00
8	.00	1.9	---				.00	.00	12	.00	.00	.00
9	.00	.00	---				.00	3.0	13	.00	2.3	.00
10	.00	1.5	---				.00	.00	.00	.00	.73	.00
11	.00	10	---				.00	.00	.00	.00	.00	.00
12	.00	25	---				.00	.00	.00	.00	6.0	.00
13	.00	31	---				.00	.00	.00	.00	.00	.00
14	.00	15	---				.00	.00	.00	.00	.00	1.4
15	.00	.00	---				.00	.00	.00	.00	30	.00
16	.00	.00	---				.00	.00	.00	.00	3.5	.00
17	.00	.00	---				.00	.00	.00	12	40	.00
18	.00	.00	---				.00	.00	.00	.00	4.8	.00
19	.00	.00	---				.00	.00	.00	.00	6.6	.00
20	.00	.00	---				.00	18	.00	.00	12	.00
21	3.0	.00	---				.00	18	.00	.00	.00	1.0
22	3.0	.00	---				.00	.00	.00	.00	.00	.00
23	1.0	.00	---				.00	.00	.00	.00	.00	.00
24	.00	33	---				.00	.00	.00	.00	.00	.00
25	1.3	20	---				.00	2.9	.00	.00	.00	.00
26	10	3.4	---				.00	7.3	.00	.00	1.7	.00
27	7.0	.00	---				.00	.00	.00	.00	.00	.00
28	7.0	.00	---				.00	.00	.00	.00	.00	.00
29	9.0	.00	---				.00	.00	.00	.00	.00	.00
30	7.0	.00	---				.00	.00	.00	.00	.00	.00
31	13	---	---				---	.00	---	.00	.00	---
TOTAL	63.50	218.80	---				.00	49.20	28.00	13.00	107.63	2.40
MEAN	2.05	7.29	---				.000	1.59	.93	.42	3.47	.080
MAX	13	33	---				.00	18	13	12	40	1.4
MIN	.00	.00	---				.00	.00	.00	.00	.00	.00
AC-FT	126	434	---				.00	98	56	26	213	4.8

08331000 RIO GRANDE AT ISLETA, NM
(Surveillance station)

LOCATION.--Lat 34°54'21", long 106°41'04", in NE¼NE¼SW¼ sec.24, T. 08 N., R. 02 E., Valencia County, Hydrologic Unit 13020203, 50 feet (15 m) upstream from diversion dam, 50 feet (15 m) downstream from bridge on State Highway 147, at Isleta.

DRAINAGE AREA.--18,100 mi^2 (46,900 km^2) (estimated).

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Samples are collected on the Peralta main canal or the Belen Highline canal when the river is completely diverted. Water-discharge measurements were made at the time water-quality samples were collected.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)
OCT										
16...	1616	15	596	7.8	23.0	20.0	14	7.6	150	210
NOV										
08...	1508	506	472	7.6	19.0	15.0	22	7.7	29	170
DEC										
08...	1208	646	480	7.8	-6.5	1.0	68	10.4	22	150
JAN										
04...	1414	457	496	7.8	9.0	7.0	33	10.2	40	150
FEB										
27...	1331	332	475	7.8	13.5	8.5	74	9.4	33	160
MAR										
29...	1313	2380	355	8.2	11.0	9.0	140	9.2	26	140
APR										
19...	1319	4740	415	7.7	19.0	14.5	--	--	--	--
MAY										
25...	1552	6200	317	7.8	21.5	17.0	990	8.1	93	120
JUN										
20...	1220	6720	241	7.9	27.5	17.0	100	8.2	45	86
JUL										
12...	1042	5400	236	7.8	26.0	19.5	54	8.1	21	84
AUG										
22...	1414	1260	444	7.9	27.5	23.5	64	7.3	23	110
SEP										
25...	1400	270	442	7.8	26.5	21.0	23	6.4	24	140

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT									
16...	--	66	11	48	1.4	5.8	160	110	23
NOV									
08...	--	56	7.8	34	1.1	4.7	130	76	19
DEC									
08...	18	46	8.1	35	1.3	4.7	130	73	19
JAN									
04...	20	47	8.0	35	1.2	4.8	130	79	18
FEB									
27...	30	50	8.5	34	1.2	4.0	130	79	24
MAR									
29...	36	43	6.9	24	.9	3.7	100	70	10
APR									
19...	--	--	--	--	--	--	--	--	--
MAY									
25...	33	39	5.8	19	.8	3.2	88	62	8.0
JUN									
20...	19	28	4.0	13	.6	2.6	67	35	4.8
JUL									
12...	16	27	4.0	11	.5	2.4	68	31	4.7
AUG									
22...	20	35	5.5	28	1.2	3.9	90	54	14
SEP									
25...	25	43	6.8	32	1.2	4.9	110	69	15

08331000 RIO GRANDE AT ISLETA, NM
(Surveillance station)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT 16...	.6	29	388	389	6	.86	.88	.63	.33
NOV 08...	.4	24	304	300	310	.84	.67	.27	.73
DEC 08...	.5	24	289	293	131	.40	.45	.98	.42
JAN 04...	.4	24	304	297	95	.19	.14	1.2	.60
FEB 27...	.5	23	296	305	158	.44	.44	.59	.51
MAR 29...	.3	18	240	238	358	.42	.26	.20	.26
APR 19...	--	--	--	--	--	--	--	--	--
MAY 25...	.3	15	203	206	1590	.25	.22	.20	3.0
JUN 20...	.2	16	154	145	269	.12	.14	.15	.28
JUL 12...	.3	18	147	140	191	.17	.02	.09	.57
AUG 22...	.4	25	225	222	154	.47	.43	.22	.31
SEP 25...	.5	28	268	267	64	.40	.29	1.5	.20

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT 16...	1.8	.900	.81	140	10	--	--	3.6	--
NOV 08...	1.8	.740	.39	130	170	--	--	3.1	3.4
DEC 08...	1.8	.790	.62	200	10	80	6.6	3.3	3.6
JAN 04...	2.0	.830	.70	100	10	--	--	2.6	1.3
FEB 27...	1.5	.530	.42	110	100	--	--	3.2	3.1
MAR 29...	.88	.420	.18	70	270	20	8.2	3.9	3.7
APR 19...	--	--	--	--	--	--	--	--	--
MAY 25...	3.5	1.30	.15	60	10	--	--	6.0	--
JUN 20...	.55	.220	.07	190	40	10	8.6	5.5	3.7
JUL 12...	.83	.150	.07	180	10	--	--	4.1	.8
AUG 22...	1.0	.920	.30	70	10	20	--	6.2	.9
SEP 25...	2.1	1.50	.82	110	<10	--	6.8	5.2	1.7

08331000 RIO GRANDE AT ISLETA, NM -- Continued
(Surveillance station)

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
DEC										
08...	1208	5	5	200	0	200	0	0	10	0
MAR										
29...	1313	5	3	200	0	70	0	0	0	0
JUN										
20...	1220	3	2	200	0	190	1	0	20	0
AUG										
22...	1414	2	4	0	80	70	3	4	10	10

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
DEC									
08...	1	0	9	3	2600	10	6	0	180
MAR									
29...	4	0	28	3	6800	270	46	2	360
JUN									
20...	7	0	16	3	7600	40	23	0	360
AUG									
22...	4	0	4	1	2700	10	6	5	160

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC									
08...	80	.3	.0	0	1	1	0	30	10
MAR									
29...	20	.0	.0	1	0	0	0	100	10
JUN									
20...	10	1.4	.1	0	0	0	0	50	10
AUG									
22...	20	.3	.2	0	0	0	0	10	<3

08331000 RIO GRANDE AT ISLETA, NM -- Continued
(Surveillance station)

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)
SEP										
25...	1400	.0	1	.00	.0	.00	.0	.00	.2	.00

DATE	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)
SEP									
25...	.0	.00	.0	.00	.00	.0	.00	.0	.00

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	PERTHANE TOTAL (UG/L) (39034)	MIREX, TOTAL (UG/L) (39755)
SEP									
25...	.0	.00	.0	.00	.0	0	0	.00	.00

Results of Analysis of Water and Bed Materials for Selected Chlorinated Hydrocarbon Isomers

Date	Time	o-p'-DDE	o-p'-DDD	o-p'DDT	cis-chlordane	trans-chlordane	∝-BHC	Hexachlorobenzene	cis-nonachlor
Sep									
25	1400 (w)	0	0	0	0	0	0	0	0
	(s)	0	0	0	0.2	0.2	0	0	0

NOTE: Reporting units are ug/L for water samples (w) and ug/kg for bed material sediment samples (s).
The lowest detectable limit is 0.01 ug/L for water samples and 0.1 ug/kg for sediment samples.

08331000 RIO GRANDE AT ISLETA, NM -- Continued
(Surveillance station)

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 16...	1616	540	750
NOV 08...	1508	290	750
DEC 08...	1208	33	85
JAN 04...	1414	26	27
FEB 27...	1331	13	32
MAR 29...	1313	5400	400
APR 19...	1319	M0	600
MAY 25...	1552	830	2400
JUN 20...	1220	110	350
JUL 12...	1042	150	200
AUG 22...	1414	380	180
SEP 25...	1400	1200	620

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 16...	1616	15	20.0	46	1.9	82
NOV 08...	1508	506	15.0	467	638	73
DEC 08...	1208	646	1.0	186	324	77
JAN 04...	1414	457	7.0	144	178	62
FEB 27...	1331	332	8.5	369	331	50
MAR 29...	1313	2380	9.0	1280	8230	33
APR 19...	1319	4740	14.5	2530	32400	37
MAY 25...	1552	6200	17.0	3850	64400	55
JUN 20...	1220	6720	17.0	2190	39700	12
JUL 12...	1042	5400	19.5	2250	32800	9
AUG 22...	1414	1260	23.5	198	674	82
SEP 25...	1400	270	21.0	90	66	98

08331990 RIO GRANDE CONVEYANCE CHANNEL NEAR BERNARDO, NM

LOCATION.--Lat 34°24'52", long 106°48'11", Socorro County, Hydrologic Unit 13020203, in Sevilleta or Belen Grant, 0.2 mi (0.3 km) south of U.S. Highway 60, 1.8 mi (2.9 km) east of Bernardo, about 3 mi (5 km) upstream from floodway, and 4 mi (6 km) upstream from Rio Puerco.

PERIOD OF RECORD.--June 1936 to September 1937, October 1964 to current year. July 1943 to September 1964, included in composite flow of "Rio Grande near Bernardo". October 1960 to September 1964, monthly acre-feet published in WSP 1923 (daily records available in district files). Beginning October 1952, flow in conveyance channel represents controlled diversion from Rio Grande. Prior to October 1952, records called "San Francisco Riverside drain near Bernardo", are not equivalent.

GAGE.--Water-stage recorder with concrete control. Datum of gage is 4,720.00 ft (1,438.656 m) National Geodetic Vertical Datum of 1929. Prior to October 1964, 0.2 mi (0.3 km) upstream at various datums.

REMARKS.--Records good. Conveyance channel is 1 of 4 channels (stations 08332010, 08332030, and 08332050) carrying flow in valley cross section. Original design and plan was for conveyance channel to carry flows up to about 2,000 ft^3/s (57 m^3/s). For combined monthly flow in acre-ft of this channel, floodway, Bernardo interior drain and Lower San Juan Riverside drain, see tabulation below daily table for station 08332010. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,220 ft^3/s (62.9 m^3/s) Apr. 22, 1958; no flow many days most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	31	2.2	7.8	9.7	9.0	10	11	13	26	14	13	5.7
2	37	2.5	7.8	9.7	9.0	10	11	14	20	15	11	5.3
3	30	2.9	9.1	9.7	9.0	9.7	11	14	17	14	11	4.9
4	25	3.4	8.3	9.7	9.0	9.7	12	14	16	15	9.1	4.6
5	13	3.9	7.7	9.3	9.0	9.7	13	16	24	16	8.8	5.2
6	19	5.0	7.8	9.0	9.0	9.7	14	16	26	16	8.2	4.6
7	20	5.7	7.8	9.0	9.0	9.7	11	15	26	16	7.3	4.1
8	12	6.2	7.9	9.0	9.0	9.7	11	14	26	18	6.9	4.1
9	10	6.1	7.7	9.0	9.0	9.5	10	14	20	18	6.4	4.1
10	9.5	6.0	7.7	9.3	9.0	9.1	11	16	19	16	6.1	6.0
11	6.6	6.6	7.7	9.7	9.0	14	12	17	20	15	7.1	4.8
12	1.6	6.9	7.7	9.6	9.0	14	15	16	21	14	6.4	4.4
13	.00	6.5	8.3	9.0	9.0	11	13	16	22	13	7.3	4.1
14	.00	6.5	8.6	9.0	9.7	9.8	13	16	22	14	8.1	4.1
15	.00	7.1	9.0	9.0	9.7	10	16	16	21	14	8.0	4.9
16	.00	7.1	9.0	9.2	9.8	12	18	16	17	15	8.5	4.9
17	.00	7.1	9.4	9.5	9.7	14	16	16	16	15	11	5.0
18	.00	7.1	9.9	10	11	15	15	15	16	19	9.8	5.0
19	.00	7.4	9.7	10	11	17	16	15	15	17	9.3	4.9
20	.00	7.1	9.5	10	10	18	16	15	15	16	8.3	5.2
21	.00	7.1	9.4	10	10	12	15	16	14	17	7.7	5.5
22	.00	7.1	9.7	10	10	11	15	16	15	17	7.6	5.5
23	.00	7.1	10	10	10	11	14	16	15	17	7.1	5.5
24	.06	7.4	9.7	10	10	11	14	17	14	16	6.3	5.5
25	.67	7.6	9.6	10	10	11	13	17	13	17	8.3	5.5
26	1.0	7.7	9.0	9.7	10	11	14	24	13	17	6.4	5.5
27	1.2	8.5	9.0	9.1	10	11	13	18	15	17	6.3	5.5
28	1.4	9.0	9.0	9.0	10	14	13	18	13	17	6.1	5.5
29	1.6	7.8	9.0	9.0	---	12	13	25	13	21	5.6	5.0
30	1.8	7.7	9.0	9.0	---	11	13	25	14	21	6.8	5.0
31	2.0	---	9.0	9.0	---	12	---	25	---	17	5.8	---
TOTAL	224.43	190.3	270.8	293.2	267.9	358.6	402	521	544	504	245.6	149.9
MEAN	7.24	6.34	8.74	9.46	9.57	11.6	13.4	16.8	18.1	16.3	7.92	5.00
MAX	37	9.0	10	10	11	18	18	25	26	21	13	6.0
MIN	.00	2.2	7.7	9.0	9.0	9.1	10	13	13	13	5.6	4.1
AC-FT	445	377	537	582	531	711	797	1030	1080	1000	487	297

CAL YR 1978 TOTAL 2957.40 MEAN 8.10 MAX 37 MIN .00 AC-FT 5870
WTR YR 1979 TOTAL 3971.73 MEAN 10.9 MAX 37 MIN .00 AC-FT 7880

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM

LOCATION.--Lat 34°25'01", long 106°48'00", Socorro County, Hydrologic Unit 13020203, in Belen or Sevilleta Grant, on downstream side of bridge on U.S. Highway 60, 5 mi (8 km) downstream from heading of conveyance channel, 2 mi (3 km) east of Bernardo, and at mile 1,487.2 (2,392.9 km).

DRAINAGE AREA.--19,230 mi² (49,810 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1936 to January 1939, October 1941 to current year. Monthly discharge only October 1942 to June 1943 published in WSP 1312, and October 1960 to September 1964, published in WSP 1923 (daily records available in district files). Published as "Rio Grande near Bernardo" prior to October 1964. Prior to October 1952, flow of Bernardo interior drain was included only when it carried river overflow, the entire flow has been included from October 1952 to September 1964. Flow in the conveyance channel, formerly San Francisco Riverside drain, has been included in record prior to October 1964.

GAGE.--Water-stage recorder. Datum of gage is 4,722.55 ft (1,439.433 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records poor. Since November 1973 flow completely regulated by Cochiti Dam (station 08317300) 100 mi (161 km) upstream. Floodway is 1 of 4 channels (stations 08331990, 08332030, and 08332050) carrying flow in valley cross section. For combined monthly flow in acre-ft of floodway, conveyance channel, Bernardo interior drain and Lower San Juan Riverside drain see tabulation below. Diversions for irrigation of about 740,000 acres (3,000 km²) above station.

AVERAGE DISCHARGE.--19 years (water years 1937-38, 1942-58), 1,125 ft³/s (31.86 m³/s), 815,100 acre-ft/yr (1,000 hm³/yr). Includes flow of floodway, conveyance channel, and Bernardo interior drain.

15 years (water years 1959-73) 898 ft³/s (25.43 m³/s), 605,600 acre-ft/yr (747 hm³/yr), includes flow of floodway, conveyance channel, Bernardo interior drain, and lower San Juan Riverside drain prior to closure of Cochiti Dam.

6 years (water years 1974-79) 1,048 ft³/s (29.68 m³/s), 759,300 acre-ft/yr (936 hm³/yr), includes flow of floodway, conveyance channel, Bernardo interior drain, and lower San Juan Riverside drain since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD (1936-39 AND SINCE 1941).--Maximum discharge, 21,000 ft³/s (595 m³/s) Apr. 25, 1942, gage height, 6.90 ft (2.103 m); no flow for many days most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,150 ft³/s (231 m³/s) June 1, 2, gage height, 6.23 ft (1.899 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	67	893	854	532	784	2070	4780	7730	5490	1470	42
2	.00	164	860	756	453	776	1960	5390	7510	5820	798	6.3
3	.00	310	745	579	561	781	1610	5240	6200	6010	818	.00
4	.00	452	691	409	536	792	1890	5870	5890	5970	780	.00
5	.00	798	619	350	692	643	1430	5730	6080	5910	678	.00
6	.00	1040	630	230	710	789	1480	5530	6320	5390	569	.00
7	.00	838	731	445	653	833	1190	5370	6520	5080	419	.00
8	.00	805	599	550	540	634	1130	5010	6710	5140	341	.00
9	.00	476	487	647	505	530	1140	5560	5170	5340	311	.00
10	.00	513	436	784	649	682	1700	5530	6210	5140	241	16
11	.00	529	380	682	699	1830	2170	5720	6840	5350	858	136
12	.00	655	345	592	693	1560	2170	5520	6740	5370	260	43
13	.00	731	324	537	745	1000	1980	5710	6550	5310	525	97
14	.00	793	556	660	773	1100	2930	5940	6550	5240	473	227
15	.00	818	1220	690	674	1160	3270	5750	6550	5050	625	572
16	.00	784	1310	657	669	1520	2980	5220	6360	5180	891	911
17	.00	600	1180	634	852	1880	2250	5410	6570	5880	2420	918
18	.00	798	1250	639	1040	1900	2430	5190	6160	6290	1720	902
19	.00	686	974	986	922	2630	4050	4670	5740	5830	1250	856
20	.00	758	882	1140	858	2500	4080	4950	5780	5740	1100	800
21	.00	734	1350	1230	869	1800	4090	5720	5800	5590	1270	831
22	.00	674	1310	935	810	968	4150	5410	5780	5390	1440	661
23	.00	697	1020	829	929	1010	4450	5740	5580	5430	1190	513
24	.00	759	734	619	906	919	4830	5510	5400	5510	795	393
25	.00	819	570	546	856	981	5100	5700	5750	5620	596	213
26	.00	841	550	579	780	1130	4980	5770	5550	5370	515	137
27	6.5	1270	580	553	852	1140	4620	5800	5660	5040	490	87
28	18	1270	570	588	775	1830	4750	5940	5830	4600	358	70
29	18	983	590	618	---	1520	4950	6130	5890	4010	318	54
30	18	985	630	570	---	2050	4670	6510	5910	3480	241	32
31	20	---	758	493	---	1840	---	6950	---	2510	79	---
TOTAL	80.50	21647	23774	20381	20533	39512	90500	173270	185330	163080	23839	8519.30
MEAN	2.60	722	767	657	733	1275	3017	5589	6178	5261	769	284
MAX	20	1270	1350	1230	1040	2630	5100	6950	7730	6290	2420	918
MIN	.00	67	324	230	453	530	1130	4670	5170	2510	79	.00
AC-FT	160	42940	47160	40430	40730	78370	179500	343700	367600	323500	47280	16900
(†)	9760	48310	52710	45930	45810	89320	193000	360200	382500	338500	61150	28170

CAL YR 1978 TOTAL 213541.77 MEAN 585 MAX 4020 MIN .00 AC-FT 423600 (†) MEAN 736 AC-FT 533100
WTR YR 1979 TOTAL 770465.80 MEAN 2111 MAX 7730 MIN .00 AC-FT 1528000 (†) MEAN 2286 AC-FT 1655000

(†) COMBINED FLOW IN ACRE-FT AND MEAN, IN FT³/S, OF FLOODWAY, CONVEYANCE CHANNEL, BERNARDO INTERIOR DRAIN, AND LOWER SAN JUAN RIVERSIDE DRAIN.

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1956 to current year.
WATER TEMPERATURES: October 1964 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1964 to current year.

REMARKS.--Additional sediment total discharge determinations were made bi-weekly when needed. Records prior to 1965 water year were published as 08332000 Rio Grande near Bernardo, N. Mex., a composite of 08331990 Rio Grande Conveyance Channel near Bernardo, 08332010 Rio Grande Floodway near Bernardo, and 08332050 Bernardo Interior Drain at Bernardo.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (Water Years 1964 to 1979): Maximum daily, 1,410 micromhos July 23, 1976; minimum daily, 240 micromhos July 14, 15, 1979.
WATER TEMPERATURES: Maximum, 34.5°C Aug. 9, 1975; minimum, 0.0°C on several days during 1971, 1972, 1976, 1977 and 1979.
SEDIMENT CONCENTRATIONS (Water Years 1975-1979): Maximum daily, 21,400 mg/L Aug. 11, 1979; minimum daily, no flow on many days each year.
SEDIMENT LOADS: Maximum daily, 356,000 tons (323,000 tonnes) Aug. 11, 1967; minimum daily, 0 tons (0 tonnes) on many days each year.

EXPREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1380 micromhos Aug. 11; minimum daily, 240 micromhos July 14, 15.
WATER TEMPERATURES: Maximum, 31.0°C July 22, Sept. 3,; minimum, 0.0°C Dec. 11, 12, Jan. 30, 31, Feb. 1.
SEDIMENT CONCENTRATIONS: Maximum daily, 21,400 mg/L Aug. 11; minimum daily, no flow on many days.
SEDIMENT LOADS: Maximum daily, 73,600 tons (66,800 tonnes) Aug. 11; minimum daily, 0 tons (0 tonnes) on many days.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
NOV												
07...	1330	826	595	7.9	13.0	160	16	47	9.3	64	2.2	5.1
22...	1000	664	568	8.0	9.5	170	26	51	9.4	47	1.6	5.1
JAN												
29...	1200	543	577	7.7	5.0	170	0	54	9.2	49	1.6	4.6
FEB												
14...	0945	740	575	8.0	7.0	190	50	60	9.7	51	1.6	4.8
MAR												
13...	0945	1060	470	7.9	8.0	150	28	46	8.1	37	1.3	4.3
MAY												
03...	1200	5790	347	8.1	12.0	140	60	47	5.5	20	.7	3.2
17...	1300	5770	316	7.8	18.0	120	35	36	6.2	26	1.1	3.5
31...	1415	6570	287	7.8	20.0	100	16	33	5.0	17	.7	3.0
JUL												
05...	1345	5740	269	7.9	23.0	0	0	--	--	--	--	11
AUG												
06...	1145	575	410	8.1	23.0	140	19	44	7.1	33	1.2	3.9
16...	1200	918	448	7.7	18.0	--	--	--	--	--	--	--
30...	1140	311	533	9.0	19.0	140	0	41	9.0	51	1.9	4.6
SEP												
13...	1000	113	593	8.4	15.0	200	26	62	10	49	1.5	5.7

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
NOV												
07...	140	120	28	.5	23	399	388	1.2	--	.41	150	20
22...	140	100	27	.5	25	--	349	1.4	--	.69	140	10
JAN												
29...	--	110	29	.5	27	--	475	1.1	--	.53	130	0
FEB												
14...	140	100	29	.5	26	--	373	1.3	--	.52	130	0
MAR												
13...	120	75	15	.5	24	--	207	1.0	--	.29	110	0
MAY												
03...	80	63	9.6	.3	17	217	214	--	--	--	60	30
17...	80	58	18	.3	19	352	217	.31	.400	.11	90	10
31...	87	40	7.7	.3	19	190	1 7	--	--	--	50	20
JUL												
05...	79	44	8.2	.3	--	--	112	.27	--	.18	50	--
AUG												
06...	120	69	13	.4	23	255	269	.84	.450	.32	80	20
16...	--	--	--	--	--	--	--	--	--	--	--	--
30...	150	110	23	.4	24	--	354	.05	--	.20	130	10
SEP												
13...	170	120	22	.6	29	397	402	.34	.630	.36	120	<10

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
NOV								
07...	1330	826	13.0	2880	6420	61	77	93
15...	1030	797	9.0	1820	3920	53	61	77
DEC								
22...	0930	1310	4.0	1110	3930	37	46	65
JAN								
21...	1100	1340	6.0	4160	15100	65	81	91
29...	1200	543	5.0	1210	1770	21	25	33
FEB								
14...	0945	740	7.0	456	911	59	71	88
MAR								
13...	0945	1060	8.0	691	1980	39	48	67
20...	0700	2680	9.0	2780	20100	23	27	44
APR								
25...	0700	5100	14.0	901	12400	46	51	64
MAY								
03...	1200	5790	12.0	808	12600	38	44	58
17...	1300	5770	18.0	831	12900	20	23	27
31...	1415	6570	20.0	528	9370	37	41	51
JUL								
05...	1345	5740	23.0	324	5020	25	29	39
AUG								
06...	1145	575	23.0	120	186	--	--	--
11...	0730	484	18.0	28800	37600	37	55	86
16...	1200	918	18.0	7070	17500	21	25	37
30...	1140	311	19.0	554	465	50	61	68
SEP								
13...	1000	113	15.0	189	58	66	76	85

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
NOV							
07...	97	99	100	--	--	--	--
15...	81	91	100	--	--	--	--
DEC							
22...	85	97	100	--	--	--	--
JAN							
21...	--	--	--	97	99	100	--
29...	51	88	100	--	--	--	--
FEB							
14...	--	--	--	99	100	--	--
MAR							
13...	--	--	--	86	96	100	--
20...	79	98	100	--	--	--	--
APR							
25...	--	--	--	96	100	--	--
MAY							
03...	--	--	--	90	99	100	--
17...	60	85	100	--	--	--	--
31...	--	--	--	86	99	100	--
JUL							
05...	--	--	--	74	97	100	--
AUG							
06...	--	--	--	93	99	100	--
11...	100	--	--	--	--	--	--
16...	94	98	100	--	--	--	--
30...	79	88	100	--	--	--	--
SEP							
13...	--	--	--	94	97	99	100

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)
NOV									
07...	1330	826	2880	6420	0	3	42	95	100
JAN									
29...	1200	543	1210	1770	7	72	97	100	--
FEB									
14...	0945	740	456	911	18	57	97	100	--
MAR									
13...	0945	1060	691	1980	48	93	100	--	--
MAY									
03...	1200	5790	808	12600	9	42	96	100	--
17...	1300	5770	831	12900	21	78	100	--	--
31...	1415	6570	528	9370	31	91	99	100	--
JUL									
05...	1345	5740	324	5020	11	79	97	100	--
AUG									
06...	1145	575	120	186	6	51	97	100	--
16...	1200	918	7070	17500	93	100	--	--	--
30...	1140	311	554	465	19	46	92	99	100
SEP									
13...	1000	113	189	58	1	13	97	100	--

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT DISCH. TOTAL, SUSP.+ BEDLOAD (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC-ITY, MEAN (FPS) (00055)
NOV									
15...	1030	797	9.0	1820	3920	4720	225	1.7	2.1
JAN									
29...	1200	543	5.0	1210	1770	2420	160	1.6	2.1
FEB									
14...	0945	740	7.0	456	911	1270	190	1.7	2.3
MAY									
03...	1200	5790	12.0	808	12600	17800	521	2.4	4.7
17...	1300	5770	18.0	831	12900	22400	410	2.8	5.1
31...	1415	6570	20.0	528	9370	12500	547	2.5	4.7
JUL									
05...	1345	5740	23.0	324	5020	9230	501	3.0	3.9
AUG									
06...	1145	575	23.0	120	186	352	208	1.5	1.8
30...	1140	311	19.0	554	465	599	111	1.4	1.9
SEP									
13...	1000	113	15.0	189	58	74	52	1.4	1.6

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	685	560	520	592	555	429	333	294	260	297	505
2	762	690	540	590	572	578	427	353	287	256	354	570
3	---	630	543	573	560	571	442	343	305	249	368	644
4	---	612	557	590	610	568	462	357	292	260	356	---
5	---	534	555	599	590	565	470	350	275	268	403	---
6	---	595	590	612	583	565	500	363	273	260	393	---
7	---	700	556	643	583	520	489	361	275	261	398	---
8	---	557	571	564	596	515	506	353	278	260	395	---
9	---	583	573	583	583	537	496	331	272	260	385	---
10	---	595	527	573	580	543	511	325	368	263	470	---
11	---	585	604	570	567	475	467	326	290	254	1380	442
12	---	545	605	575	593	449	474	327	280	250	495	532
13	---	560	611	590	580	509	480	323	270	245	454	498
14	---	567	601	577	590	493	466	318	278	240	460	453
15	---	631	512	555	586	509	465	312	272	240	517	432
16	---	579	508	562	606	504	455	320	267	243	447	433
17	---	582	493	560	611	480	451	333	270	243	342	407
18	---	586	512	586	555	480	453	331	262	248	600	425
19	---	580	483	578	552	456	462	325	255	253	586	430
20	---	574	524	562	563	440	427	311	250	287	470	456
21	---	565	529	710	555	428	406	296	257	256	440	425
22	---	580	490	692	555	467	395	305	253	249	425	526
23	---	594	532	737	555	486	385	309	251	252	415	518
24	---	502	493	716	542	491	378	307	253	260	415	540
25	---	575	500	622	550	492	370	311	251	270	432	580
26	---	562	522	572	564	464	371	324	252	266	444	605
27	---	566	521	564	555	444	364	310	253	257	448	592
28	---	518	552	617	567	451	344	304	250	258	453	659
29	---	544	568	610	---	421	339	300	257	263	510	657
30	804	542	560	585	---	412	336	296	257	263	540	636
31	770	---	578	595	---	455	---	291	---	276	512	---
MEAN	779	587	544	599	575	494	434	324	272	257	471	520

WTR YR 1979 MEAN 462 MAX 1380 MIN 240

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	13.0	6.0	3.0	.0	7.0	12.0	14.0	17.0	23.0	22.0	20.0
2	21.0	12.0	7.5	3.0	1.0	7.5	5.0	14.5	15.5	18.0	23.0	28.0
3	---	13.5	5.5	4.0	9.0	7.0	7.0	13.0	20.0	20.0	22.5	31.0
4	---	12.0	2.0	4.0	7.0	10.0	6.0	12.0	18.0	21.0	24.0	---
5	---	15.0	3.0	5.0	3.5	4.0	8.0	13.0	17.0	13.0	28.5	---
6	---	9.5	4.0	8.0	1.0	5.0	9.0	15.0	16.0	20.5	21.5	---
7	---	9.0	3.5	8.0	1.0	7.0	11.0	14.0	19.0	24.0	23.0	---
8	---	10.0	1.0	3.0	3.0	8.0	18.0	15.0	18.0	24.5	21.0	---
9	---	10.0	1.5	3.0	3.0	10.0	14.0	13.0	15.0	20.0	20.0	---
10	---	13.0	3.0	3.5	11.0	7.0	11.0	10.0	19.0	20.5	23.0	---
11	---	13.0	.0	3.0	11.0	10.0	7.0	10.0	16.0	21.0	18.0	28.0
12	---	12.5	.0	5.0	4.0	6.0	7.0	12.0	16.0	20.0	25.0	28.0
13	---	8.0	2.0	8.0	5.0	7.0	4.5	12.0	17.0	21.5	22.0	27.0
14	---	8.0	2.0	6.0	5.0	9.0	10.0	13.0	17.0	22.0	20.0	25.0
15	---	7.0	1.0	4.0	9.0	8.0	8.0	14.0	18.0	22.0	20.0	23.0
16	---	9.0	7.0	6.0	8.0	10.0	9.0	15.0	26.5	22.0	19.0	23.0
17	---	7.0	4.0	7.0	5.0	10.0	12.0	15.0	26.0	21.5	20.0	16.0
18	---	11.0	7.0	8.0	6.5	11.0	13.0	15.0	22.0	21.5	25.0	16.0
19	---	9.0	10.5	5.5	6.0	8.0	13.0	16.5	20.5	20.0	24.0	17.0
20	---	12.0	4.0	9.0	8.0	9.0	10.5	18.5	22.5	20.0	18.0	17.0
21	---	10.5	7.0	6.0	8.0	9.0	13.0	12.0	22.5	21.0	18.0	18.0
22	---	11.0	4.0	5.0	8.0	6.5	12.0	15.0	20.0	31.0	19.0	18.0
23	---	12.0	3.5	2.0	5.0	5.0	14.0	17.0	15.0	20.0	20.0	20.0
24	---	11.5	6.5	3.0	7.0	17.0	12.0	18.0	27.0	21.5	20.0	16.0
25	---	13.0	8.0	5.0	10.0	15.0	14.0	17.0	27.0	23.0	30.0	16.0
26	---	10.0	3.0	4.0	5.0	9.0	14.0	17.0	20.0	22.0	21.0	16.0
27	---	5.5	8.0	6.0	6.0	10.0	14.0	15.0	20.0	22.0	20.0	15.0
28	---	5.0	5.0	5.0	5.0	10.0	14.5	16.0	21.0	28.0	21.0	16.0
29	---	5.0	9.0	3.0	---	8.0	15.0	16.5	21.0	25.0	20.0	17.5
30	8.0	5.0	8.0	.0	---	7.0	15.0	17.0	24.5	29.0	20.0	19.0
31	9.0	---	8.0	.0	---	9.0	---	17.0	---	22.0	19.0	---
MEAN	12.5	10.0	4.5	4.5	6.0	8.5	11.0	14.5	20.0	22.0	21.5	20.5

WTR YR 1979 MEAN 13.0 MAX 31.0 MIN .0

08332010 RIO GRANDE FLOODWAY NEAR BERNARDO, NM -- Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
1	0	.00	1150	208	730	1760	461	1060	388	557	500	1060
2	0	.00	1930	855	720	1670	506	1030	362	443	538	1130
3	0	.00	1560	1310	652	1310	487	761	452	685	458	966
4	0	.00	1240	1510	521	972	317	350	391	566	920	1970
5	0	.00	2250	4850	455	760	251	237	556	1040	600	1040
6	0	.00	5310	14900	560	953	260	161	512	982	645	1370
7	0	.00	3530	7990	475	938	323	388	420	741	618	1390
8	0	.00	1550	3370	393	636	287	426	345	503	425	728
9	0	.00	990	1270	404	531	423	739	282	385	451	645
10	0	.00	959	1330	357	420	515	1090	404	708	961	1930
11	0	.00	708	1010	335	353	388	714	485	915	3820	18900
12	0	.00	781	1380	305	284	321	513	460	861	1800	7580
13	0	.00	833	1640	266	233	305	442	470	945	1400	3780
14	0	.00	1690	3620	327	491	374	666	527	1100	1050	3120
15	0	.00	1680	3710	596	1910	325	605	453	824	960	3010
16	0	.00	1350	2860	657	2320	291	516	1500	2710	1540	6320
17	0	.00	970	1570	627	2000	286	490	2390	5500	1690	8580
18	0	.00	1100	2370	540	2110	276	476	2270	6370	1910	9800
19	0	.00	703	1300	495	1300	1390	3700	2850	7090	2680	19000
20	0	.00	693	1420	604	1440	1400	4310	3510	8130	2520	17000
21	0	.00	610	1210	788	2870	3510	11700	3280	7700	1490	7240
22	0	.00	555	1010	1080	3820	1320	3330	2060	4510	1340	3500
23	0	.00	608	1140	848	2340	875	1960	1700	4260	588	1600
24	0	.00	463	949	590	1170	752	1260	1250	3060	440	1090
25	0	.00	488	1080	527	811	800	1180	490	1130	573	1520
26	0	.00	567	1290	418	621	585	915	833	1750	475	1450
27	91	4.0	1470	5040	394	834	465	694	725	1670	420	1290
28	178	8.7	1830	6280	384	632	502	797	415	868	1100	5590
29	155	7.5	1000	2650	368	586	870	1450	---	---	675	2770
30	155	7.5	850	2260	326	555	508	782	---	---	750	4150
31	151	8.2	---	---	360	737	501	667	---	---	808	4010
TOTAL	---	35.90	---	81382	---	37367	---	43409	---	66003	---	143529

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
1	862	4820	825	10600	392	8180	330	4890	158	627	368	42
2	742	3930	723	10500	575	11700	360	5660	145	312	59	4.0
3	595	2590	782	11100	775	13000	295	4790	160	353	0	.00
4	755	3850	797	12600	425	6760	322	5190	154	324	0	.00
5	553	2140	832	12900	460	7550	331	5280	153	280	0	.00
6	527	2110	700	10500	578	9860	265	3860	133	204	0	.00
7	395	1270	603	8740	500	8800	285	3910	112	127	0	.00
8	432	1320	652	8820	425	7700	292	4050	111	102	0	.00
9	348	1070	600	9010	450	6280	260	3750	103	86	0	.00
10	918	4580	703	10500	1840	30900	239	3320	102	66	152	22
11	1300	7620	610	9420	950	17500	254	3670	21400	73600	351	129
12	1020	5980	575	8570	550	10000	230	3330	1000	702	153	18
13	798	4270	570	8790	473	8370	235	3370	4000	5670	155	41
14	902	7140	605	9700	432	7640	220	3110	3750	4790	299	183
15	930	8210	425	6600	415	7340	260	3550	9560	22000	378	584
16	797	6410	498	7020	466	8000	247	3450	6000	14400	364	895
17	625	3800	580	8470	333	5910	286	4540	5980	39100	312	773
18	835	5480	475	6660	336	5590	478	8120	3170	14700	332	809
19	1320	14400	425	5360	346	5360	343	5400	1200	4050	269	623
20	1170	12900	449	6000	348	5430	264	4090	945	2810	241	521
21	1020	11300	576	8900	310	4850	373	5630	667	2290	220	494
22	880	9860	598	8730	329	5130	258	3750	575	2240	177	316
23	870	10500	555	8600	267	4020	215	3150	485	1560	174	241
24	982	12800	475	7070	267	3890	214	3180	425	912	147	156
25	850	11700	533	8200	290	4500	203	3080	360	579	117	67
26	825	11100	685	10700	276	4140	196	2840	280	389	95	35
27	925	11500	488	7640	291	4450	216	2940	272	360	96	23
28	950	12200	420	6740	297	4680	195	2420	243	235	80	15
29	875	11700	475	7860	256	4070	238	2580	218	187	69	10
30	890	11200	524	9210	280	4470	215	2020	360	234	83	7.2
31	---	---	540	10100	---	---	223	1510	749	160	---	---
TOTAL	---	217750	---	275610	---	236070	---	120430	---	193449	---	6008.20

TOTAL LOAD FOR YEAR: 1421043.10 TONS.

08332050 BERNARDO INTERIOR DRAIN NEAR BERNARDO, NM

LOCATION.--Lat 34°24'56", long 106°49'15", Socorro County, Hydrologic Unit 13020203, on right bank 110 ft (34 m) upstream from bridge on U.S. Highway 60, and 1.0 mi (1.6 km) east of Bernardo.

PERIOD OF RECORD.--June 1936 to May 1937, October 1943 to current year. Monthly discharge only June 1936 to May 1937, published in WSP 828. October 1943 to September 1960 included in composite records for station 08332000 "Rio Grande near Bernardo". October 1960 to September 1964 monthly acre-ft published in WSP 1923. Daily records available in district files beginning October 1943.

GAGE.--Water-stage recorder. Altitude of gage is 4,714 ft (1,437 m) from topographic map. June 4, 1936 to May 17, 1937, nonrecording gage 300 ft (91 m) downstream and Oct. 1, 1943 to Jan. 12, 1978, water-stage recorder at site 150 ft (46 m) downstream at different datum.

REMARKS.--Records good. This drain is 1 of 4 channels (stations 08331990, 08332010, and 08332030) carrying flow in valley cross section. For combined monthly flow in acre-ft of this drain, conveyance channel, floodway, and Lower San Juan Riverside drain see tabulation below daily table for station 08332010. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 187 ft³/s (5.30 m³/s) Aug. 7, 1970; no flow at times. Prior to 1952, drain was subject to overflow from floodway.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	98	60	25	25	25	27	48	74	80	70	56	97
2	100	27	25	26	24	26	50	77	75	79	64	90
3	103	25	24	26	23	26	39	83	70	62	97	92
4	93	24	23	25	24	26	49	82	73	63	93	71
5	89	25	23	25	24	25	46	78	82	66	87	87
6	78	25	23	25	25	25	33	76	85	64	86	77
7	76	25	22	24	25	24	42	74	84	65	87	69
8	56	25	21	24	24	20	53	73	81	65	87	63
9	56	25	21	25	24	28	60	61	81	64	86	70
10	53	25	22	26	24	35	62	79	79	65	95	74
11	49	26	21	26	25	37	66	83	79	65	102	89
12	58	26	21	25	25	32	67	76	75	62	98	92
13	51	26	21	24	25	30	71	82	71	60	98	101
14	54	25	22	24	26	30	66	82	66	57	93	117
15	51	25	23	24	26	28	72	73	66	59	104	129
16	50	27	24	23	25	49	50	69	70	77	102	125
17	46	27	24	21	25	52	40	72	73	71	99	121
18	56	27	25	22	27	62	38	76	66	61	98	124
19	53	27	24	24	27	64	53	69	53	59	85	120
20	50	27	23	25	27	55	57	70	55	64	82	123
21	68	28	23	25	27	58	53	75	54	72	82	115
22	95	28	24	25	27	64	59	77	48	76	78	89
23	95	27	24	24	27	68	54	75	59	75	76	80
24	104	27	24	26	27	61	49	86	61	61	73	86
25	101	26	24	27	27	39	68	94	69	62	88	88
26	98	25	24	25	27	60	86	89	70	67	91	81
27	102	25	23	24	27	41	85	83	60	64	85	80
28	97	25	23	25	27	47	78	82	60	63	86	85
29	87	25	23	25	---	49	79	86	62	75	58	85
30	80	25	24	24	---	44	81	80	72	64	59	76
31	74	---	24	24	---	56	---	77	---	62	114	---
TOTAL	2321	810	717	763	716	1288	1754	2413	2079	2039	2689	2796
MEAN	74.9	27.0	23.1	24.6	25.6	41.5	58.5	77.8	69.3	65.8	86.7	93.2
MAX	104	60	25	27	27	68	86	94	85	79	114	129
MIN	46	24	21	21	23	20	33	61	48	57	56	63
AC-FT	4600	1610	1420	1510	1420	2550	3480	4790	4120	4040	5330	5550

CAL YR 1978 TOTAL 18777 MEAN 51.4 MAX 144 MIN 21 AC-FT 37240
WTR YR 1979 TOTAL 20385 MEAN 55.8 MAX 129 MIN 20 AC-FT 40430

08334000 RIO PUERCO ABOVE ARROYO CHICO, NEAR GUADALUPE, NM

LOCATION.--Lat 35°38'08", long 107°09'56", in SW¼ sec.21, T.16 N., R.3 W., Sandoval County, Hydrologic Unit 13020204, on right bank 1.6 mi (2.6 km) upstream from Arroyo Chico, 5.5 mi (8.8 km) northeast of village of Guadalupe, and at mile 106.8 (171.8 km).

DRAINAGE AREA.--420 mi^2 (1,090 km^2), approximately.

PERIOD OF RECORD.--July 1951 to current year.

GAGE.--Water-stage recorder. Datum of gage is 5,949 ft (1,813.3 m) National Geodetic Vertical Datum of 1929. Prior to July 14, 1966 at datum 1.01 ft (0.308 m) higher.

REMARKS.--Records poor. Diversions for irrigation of about 3,700 acres (15 km^2) above station in past years, but present diversion negligible. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 13.3 ft^3/s (0.377 m^3/s), 9,640 acre-ft/yr (11.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,940 ft^3/s (197 m^3/s) July 29, 1967, gage height, 13.53 ft (4.124 m), from rating curve extended above 1,300 ft^3/s (37 m^3/s) on basis of slope-area measurements at gage heights 7.75 ft (2.362 m) and 10.60 ft (3.231 m); no flow for many days most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of June 29, 1943, probably exceeded 5,000 ft^3/s (140 m^3/s) based on records for stations above and below.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,010 ft^3/s (28.6 m^3/s) at 0530 hours Nov. 3, gage height, 5.16 ft (1.573 m), no other peak above base of 1,000 ft^3/s (28.3 m^3/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.50	10	20	5.0	87	1.0	1.0	.00	.00
2	.00	.00	.00	.50	10	30	1.0	82	20	30	.00	.00
3	.00	301	.00	.50	10	45	1.0	93	5.0	5.0	.00	.00
4	.00	71	.00	.50	10	36	1.0	30	2.0	1.0	.00	.00
5	.00	3.0	.00	.50	10	32	1.0	10	2.0	1.0	.00	.00
6	.00	1.0	.00	.10	10	37	.80	10	5.0	3.0	.00	.00
7	.00	.00	.00	.10	10	101	.80	20	3.0	50	.00	.00
8	.00	.00	.00	.10	11	205	.80	98	3.0	10	.00	.00
9	.00	.00	.00	.10	12	327	.80	120	10	5.0	.00	.00
10	.00	.00	.00	.00	15	169	.80	10	9.0	4.0	.00	.00
11	.00	7.0	.00	.00	20	102	.80	10	5.0	3.0	.00	.00
12	.00	25	.00	5.0	100	121	1.0	10	5.0	1.0	.00	.00
13	.00	30	.00	1.0	200	131	2.0	10	4.0	1.0	10	.00
14	.00	10	.00	.00	270	136	4.0	10	3.0	1.0	80	.00
15	.00	5.0	.00	.00	300	81	10	10	10	1.0	300	30
16	.00	2.0	.00	1.0	250	100	39	5.0	9.0	1.0	200	5.0
17	.00	.60	.00	30	200	95	44	5.0	8.0	1.0	80	2.0
18	.00	.00	.00	270	150	70	52	5.0	7.0	50	20	2.0
19	.00	.00	7.3	200	120	30	68	5.0	2.0	60	10	1.0
20	.00	.00	209	100	100	20	75	5.0	1.0	30	.70	1.0
21	.00	.00	50	40	90	18	64	50	1.0	5.0	.00	2.0
22	.00	.00	5.0	30	80	16	59	10	1.0	1.0	.00	20
23	.00	.00	.00	10	70	14	70	150	1.0	1.0	.00	5.0
24	.00	.00	.00	1.0	60	12	88	90	1.0	.50	.00	1.0
25	.00	31	.00	5.0	40	10	84	70	1.0	.00	.00	.00
26	.00	22	.00	6.0	10	15	84	20	2.0	.00	.00	.00
27	.00	2.0	.00	6.0	40	12	92	20	2.5	.00	.00	.00
28	.00	.00	.00	6.0	10	16	80	10	2.8	.00	.00	.00
29	.00	.00	.00	6.0	---	19	82	5.0	1.0	.00	.00	.00
30	.00	.00	.00	6.0	---	23	84	1.0	1.0	.00	.00	.00
31	.00	---	.00	6.0	---	15	---	1.0	---	.00	.00	---
TOTAL	.00	510.60	271.30	731.90	2218	2058	1095.80	1062.0	128.3	266.50	700.70	69.00
MEAN	.000	17.0	8.75	23.6	79.2	66.4	36.5	34.3	4.28	8.60	22.6	2.30
MAX	.00	301	209	270	300	327	92	150	20	60	300	30
MIN	.00	.00	.00	.00	10	10	.80	1.0	1.0	.00	.00	.00
AC-FT	.00	1010	538	1450	4400	4080	2170	2110	254	529	1390	137

CAL YR 1978 TOTAL 4002.76 MEAN 11.0 MAX 301 MIN .00 AC-FT 7940
WTR YR 1979 TOTAL 9112.10 MEAN 25.0 MAX 327 MIN .00 AC-FT 18070

08334300 PAPERS WASH NEAR STAR LAKE TRADING POST, NM

LOCATION.--Lat 35°53'36", long 107°24'58" in SE¼SE¼NE¼, sec.12, T.19 N., R.6 W., McKinley County, Hydrologic Unit 13020205, on right bank 2.2 mi (3.5 km) east of Star Lake Trading Post, and 14.6 mi (23.5 km) southeast of Pueblo Pintado.

DRAINAGE AREA.--20.3 mi² (52.6 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,630 ft (2,033 m).

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24 ft³/s (0.68 m³/s) Oct. 3, 1977, gage height 3.46 ft (1.055), from rating curve extended above 2.0 ft³/s (0.06) by step-backwater analysis; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about 23 ft³/s (0.65 m³/s) Feb. 14, gage height, not determined; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.02	.00	.00	.06	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.42	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.08	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.02	.00	.00	.49	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.29	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00
12	.00	.00	.00	.00	.20	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	13	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	23	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	21	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	21	.00	.00	.00	.00	.00	.28	.00
17	.00	.00	.00	.10	14	.00	.00	.00	.00	.00	.04	.00
18	.00	.00	.00	6.0	8.7	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	5.0	6.2	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.80	4.8	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.04	.08	2.9	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	1.6	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	1.3	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.70	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.42	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.16	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	1.3	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	1.34	11.98	119.18	.12	.00	.00	1.36	.00	.32	.00
MEAN	.000	.000	.043	.39	4.26	.004	.000	.000	.045	.000	.010	.000
MAX	.00	.00	1.3	6.0	23	.08	.00	.00	.49	.00	.28	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	2.7	24	236	.2	.00	.00	2.7	.00	.6	.00

CAL YR 1978 TOTAL 17.78 MEAN .049 MAX 2.3 MIN .00 AC-FT 35
WTR YR 1979 TOTAL 134.30 MEAN .37 MAX 23 MIN .00 AC-FT 266

Note: No gage-height record January 11 to March 1.

08334300 PAPERS WASH NEAR STAR LAKE TRADING POST, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 40 indicates single-stage sampler.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
JAN											
17...	2400	E4.6	230	7.4	--	--	--	--	--	--	--
FEB											
13...	2050	E7.6	198	7.5	--	--	--	--	--	--	--
13...	2055	E17	193	7.2	--	--	--	--	--	--	--
13...	2100	E21	202	7.2	--	--	--	--	--	--	--
MAR											
01...	1430	.02	211	8.4	9.5	6.0	9.3	37	0	13	1.0

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)
JAN											
17...	--	--	--	--	--	--	--	--	--	--	--
FEB											
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
MAR											
01...	39	2.8	2.9	130	2	110	3.1	4.3	.5	6.4	154

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	SAMPLE SOURCE (72005)
JAN											
17...	--	--	--	--	--	--	--	--	28	--	40
FEB											
13...	--	--	--	--	--	--	--	--	17	--	40
13...	--	--	--	--	--	--	--	--	8.6	--	40
13...	--	--	--	--	--	--	--	--	9.5	--	40
MAR											
01...	136	.68	.53	1.2	2.4	.320	70	60	--	5.4	--

08334300 PAPERS WASH NEAR STAR LAKE TRADING POST, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SAMPLE SOURCE (72005)
JAN					
17...	2400	3	.1	0	40
FEB					
13...	2050	2	.1	0	40
13...	2055	2	.1	0	40
13...	2100	2	.1	0	40

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
MAR			
01...	1430	K0	13000

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SAMPLE SOURCE (72005)
JAN					
17...	2400	E4.6	--	1390	40
FEB					
13...	2050	E7.6	--	794	40
13...	2055	E17	--	566	40
13...	2100	E21	--	773	40
MAR					
01...	1430	.02	6.0	1200	--

08340500 ARROYO CHICO NEAR GUADALUPE, NM

LOCATION.--Lat 35°35'33", long 107°11'19", in NE¼ sec.30, T.16 N., R.3 W., Sandoval County, Hydrologic Unit 13020205, on left bank 0.2 mi (0.3 km) upstream from mouth, 4.1 mi (6.6 km) northwest of Guadalupe, and 5.5 mi (8.8 km) southwest of Cabezon.

DRAINAGE AREA.--1,390 mi² (3,600 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1943 to current year.

REVISED RECORDS.--WSP 1282: 1944-50.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,921 ft (1,804.7 m) National Geodetic Vertical Datum of 1929. Prior to June 21, 1968 at site 500 ft (150 m) upstream at datum 2.00 ft (0.610 m) higher.

REMARKS.--Water-discharge records poor. Diversions for irrigation of about 100 acres (40 hm²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 21.6 ft³/s (0.612 m³/s), 15,650 acre-ft/yr (19.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,200 ft³/s (430 m³/s) Sept. 12, 1972, gage height, 17.5 ft (5.33 m) from floodmarks, from rating curve extended above 2,900 ft³/s (82 m³/s) on basis of slope-area measurements at gage heights 11.6 ft (3.536 m) and 14.8 ft (4.511 m); no flow for many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,810 ft³/s (51.3 m³/s) at 2345 hours Feb. 14, gage height, 5.86 ft (1.786 m), no peak above base of 2,500 ft³/s (71 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	5.0	94	1.3	.00	1.0	.19	.00	.00
2	.00	.00	.00	.00	5.0	62	.80	.04	16	32	.00	.00
3	.00	76	.00	.00	5.0	40	.89	.06	4.5	31	.00	.00
4	.00	50	.00	.00	5.0	20	.61	.00	3.0	1.0	.00	.00
5	.00	18	.00	.00	8.0	23	.60	.00	2.0	.50	.00	.00
6	.00	2.0	.00	.50	8.0	33	.53	.04	4.4	.50	.00	.00
7	.00	.00	.00	.50	8.0	121	.49	.19	3.6	1.0	.00	.00
8	.00	.00	.00	.50	9.0	190	.45	.21	3.6	18	.00	.00
9	.00	.00	.00	.50	11	181	.37	1.1	8.2	10	.00	.00
10	.00	.00	.00	.80	12	63	.57	1.9	7.2	5.0	71	.00
11	.00	47	.00	2.3	12	50	.53	2.2	5.0	3.0	75	.00
12	.00	62	.00	9.8	145	68	.65	.80	5.0	2.0	20	.00
13	.00	25	.00	4.4	446	92	.00	.50	4.0	1.0	10	.00
14	.00	4.0	.00	2.0	635	111	.00	.00	3.0	1.0	86	.23
15	.00	1.0	.00	2.0	940	81	.00	.00	7.0	1.0	869	22
16	.00	.21	.00	4.7	807	59	.00	.02	6.0	1.0	349	4.7
17	.00	.19	.00	23	576	68	.00	.11	5.0	1.0	77	2.2
18	.00	.17	.00	378	595	57	.00	.08	4.0	33	15	1.6
19	.00	.15	2.0	182	468	24	.00	.04	2.0	133	10	1.3
20	.00	.15	50	81	398	16	.00	.21	1.0	39	5.4	1.3
21	.30	.17	10	32	257	15	.00	7.7	1.6	10	.00	1.9
22	.57	.17	1.0	15	148	14	.00	4.7	1.3	20	.00	24
23	1.3	.17	.00	5.0	122	12	.00	1.7	1.9	5.0	.00	3.8
24	.30	.27	.00	3.8	60	10	.00	1.1	1.9	1.0	.00	2.0
25	.20	49	.00	3.8	40	10	.00	64	6.0	.00	.00	1.3
26	2.6	36	.00	4.7	20	14	.00	58	1.0	.00	.00	.99
27	1.3	5.0	.00	4.5	78	15	.00	15	.09	.00	.00	.99
28	.30	.50	.00	4.5	50	17	.00	15	.01	.00	.00	.65
29	.00	.00	.00	5.0	---	8.2	.00	5.0	.00	.00	.00	.49
30	.00	.00	.00	5.0	---	1.6	.01	1.0	.04	.00	.00	.37
31	.00	---	.00	5.0	---	2.4	---	1.0	---	.00	.00	---
TOTAL	6.87	377.15	63.00	780.30	5873.0	1572.2	7.80	181.70	109.34	350.19	1587.40	69.82
MEAN	.22	12.6	2.03	25.2	210	50.7	.26	5.86	3.64	11.3	51.2	2.33
MAX	2.6	76	50	378	940	190	1.3	64	16	133	869	24
MIN	.00	.00	.00	.00	5.0	1.6	.00	.00	.00	.00	.00	.00
AC-FT	14	748	125	1550	11650	3120	15	360	217	695	3150	138

CAL YR 1978 TOTAL 1489.66 MEAN 4.08 MAX 95 MIN .00 AC-FT 2950
WTR YR 1979 TOTAL 10978.77 MEAN 30.1 MAX 940 MIN .00 AC-FT 21780

08340500 ARROYO CHICO NEAR GUADALUPE, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948-56, 1978 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: July 1948 to June 1956, October 1978 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler since July 1979.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 123,000 mg/l Aug. 15, 1979; minimum daily, no flow on many days each year.
SEDIMENT LOADS: Maximum daily, 1,220,000 tons (1,110,000 tonnes) July 17, 1953; minimum daily, 0 ton (0 tonne) on many days each year.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 123,000 mg/l Aug. 15; minimum daily, no flow on many days.
SEDIMENT LOADS: Maximum daily, 267,000 tons (242,000 tonnes) Feb. 15; minimum daily, 0 ton (0 tonne) on many days.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
FEB								
15...	1730	535	663	5.0	50400	72800	32	37
MAR								
02...	1330	70	538	1.5	28800	5440	43	52
12...	1600	56	696	9.5	27200	4110	60	68
28...	1220	9.2	1010	6.0	15700	390	71	79
MAY								
09...	1045	.75	4170	--	3310	6.7	90	94
23...	1330	1.9	2370	19.0	17800	91	--	--
JUN								
21...	1615	1.9	3880	--	5540	28	--	--
21...	1616	1.9	3540	--	5620	29	--	--
JUL								
02...	1315	111	4020	--	73100	21900	53	70
03...	0220	104	2720	--	100000	28100	51	59
18...	0800	84	4250	--	70000	15900	58	77
18...	2210	19	3500	--	68800	3530	63	75
AUG								
20...	1340	7.2	1210	--	13200	257	--	--
20...	1540	7.2	1110	24.0	12200	237	--	--
20...	1541	7.2	1150	24.0	12600	245	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)
FEB							
15...	44	--	--	63	81	97	100
MAR							
02...	74	--	--	87	95	100	--
12...	79	--	--	86	93	100	--
28...	89	--	--	94	97	100	--
MAY							
09...	95	99	100	--	--	--	--
23...	--	99	--	--	--	--	--
JUN							
21...	--	87	--	--	--	--	--
21...	--	91	--	--	--	--	--
JUL							
02...	89	--	--	98	100	--	--
03...	80	--	--	95	99	100	--
18...	96	--	--	99	100	--	--
18...	93	--	--	96	99	100	--
AUG							
20...	--	95	--	--	--	--	--
20...	--	98	--	--	--	--	--
20...	--	93	--	--	--	--	--

08340500 ARROYO CHICO NEAR GUADALUPE, NM -- Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	.00	0	.00	0	.00	0	.0	14800	200	47000	11900
2	0	.00	0	.00	0	.00	0	.0	14800	200	31000	5190
3	0	.00	64500	15900	0	.00	0	.0	14800	200	39500	4700
4	0	.00	27500	3710	0	.00	0	.0	14800	200	40000	2160
5	0	.00	12000	583	0	.00	0	.0	16200	350	38000	2630
6	0	.00	8000	43	0	.00	3410	4.6	16200	350	39500	3760
7	0	.00	0	.00	0	.00	3410	4.6	16200	350	63400	22300
8	0	.00	0	.00	0	.00	3410	4.6	20600	500	78000	46000
9	0	.00	0	.00	0	.00	3410	4.6	23600	700	78600	42400
10	0	.00	0	.00	0	.00	4630	10	24700	800	56000	9970
11	0	.00	38300	11700	0	.00	15900	196	24700	800	38000	5130
12	0	.00	54000	9040	0	.00	34000	1150	48000	36000	32000	5880
13	0	.00	19500	1320	0	.00	24500	291	93500	134000	65000	16100
14	0	.00	14500	157	0	.00	11500	62	94700	177000	71000	21300
15	0	.00	9500	26	0	.00	8000	43	93900	267000	65000	14200
16	0	.00	1940	1.1	0	.00	18000	228	84500	213000	61000	9720
17	0	.00	1930	.99	0	.00	32100	3220	70000	109000	67000	12300
18	0	.00	1740	.80	0	.00	94700	102000	67500	108000	65000	10000
19	0	.00	1580	.64	7780	42	79000	38800	68500	86600	48500	3140
20	0	.00	1580	.64	69600	9400	61000	13300	62000	66600	36500	1580
21	2470	2.0	1740	.80	22200	599	36500	3150	55000	38200	29600	1200
22	3770	5.8	1740	.80	5190	14	30600	1720	43000	17200	26500	1000
23	6270	22	1740	.80	0	.00	17000	230	43000	14200	24700	800
24	2470	2.0	4000	2.9	0	.00	11700	120	24000	3890	22200	599
25	1850	1.0	60000	9630	0	.00	11700	120	20000	2160	22200	599
26	9690	68	61500	6270	0	.00	13800	175	17000	918	26500	1000
27	6270	22	28500	385	0	.00	13600	165	48900	11500	26000	1050
28	2470	2.0	8000	11	0	.00	13600	165	32000	4320	22300	1020
29	0	.00	0	.00	0	.00	14800	200	--	--	17500	387
30	0	.00	0	.00	0	.00	14800	200	--	--	6940	30
31	0	.00	---	---	0	.00	14800	200	---	---	9260	60
TOTAL	---	124.80	---	58784.47	---	10055.00	---	165763.4	---	1294238	---	258105

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	6270	22	0	.00	2590	7.0	1910	.98	0	.0	0	.00
2	4630	10	600	.06	32500	1780	26800	4610	0	.0	0	.00
3	4580	11	800	.13	14500	176	43000	6320	0	.0	0	.00
4	3760	6.2	0	.00	11000	89	8000	22	0	.0	0	.00
5	3770	6.1	0	.00	9000	49	3410	4.6	0	.0	0	.00
6	3490	5.0	600	.06	13500	160	3410	4.6	0	.0	0	.00
7	3330	4.4	1500	.77	10300	100	6170	17	0	.0	0	.00
8	3050	3.7	1600	.91	10300	100	53100	7460	0	.0	0	.00
9	2700	2.7	4800	14	19000	421	22200	599	0	.0	0	.00
10	3570	5.5	7050	36	18500	360	14800	200	74500	20200	0	.00
11	3490	5.0	7800	46	14800	200	11000	89	66700	16200	0	.00
12	3990	7.0	5800	13	14800	200	9000	49	23000	1240	0	.00
13	0	.00	3400	4.6	12500	135	5190	14	21000	567	0	.00
14	0	.00	0	.00	11000	89	5190	14	26200	24200	2130	4.6
15	0	.00	0	.00	18000	340	5190	14	123000	222000	34700	2950
16	0	.00	500	.03	16700	271	5190	14	93400	103000	15500	197
17	0	.00	1350	.40	14800	200	5190	14	43000	8940	8800	52
18	0	.00	1020	.22	12500	135	65200	6580	26500	1070	6000	26
19	0	.00	600	.06	9000	49	78200	31400	20500	554	5000	18
20	0	.00	1940	1.1	5190	14	36000	3790	12800	187	5000	18
21	0	.00	19200	399	5580	24	22000	594	0	.0	7800	40
22	0	.00	13800	175	5000	18	51900	2800	0	.0	43000	3780
23	0	.00	17800	81	7800	40	14800	200	0	.0	13000	133
24	0	.00	5720	17	7800	40	5190	14	0	.0	9000	49
25	0	.00	64000	11100	16700	271	0	.00	0	.0	6000	21
26	0	.00	65000	11000	5190	14	0	.00	0	.0	5200	14
27	0	.00	35000	1420	1110	.27	0	.00	0	.0	5200	14
28	0	.00	30000	1220	370	.01	0	.00	0	.0	4000	7.0
29	0	.00	17000	230	0	.00	0	.00	0	.0	3400	4.5
30	370	.01	8500	23	508	.11	0	.00	0	.0	2700	2.7
31	---	---	2700	7.3	---	---	0	.00	0	.0	---	---
TOTAL	---	88.61	---	25789.64	---	5282.39	---	64824.18	---	398158.0	---	7330.80

TOTAL LOAD FOR YEAR: 2288544.29 TONS.

08341400 BLUEWATER LAKE NEAR BLUEWATER, NM

LOCATION.--Lat 35°17'31", long 108°06'40", in SE¼ sec.9, T.12 N., R.12 W., Valencia County, Hydrologic Unit 13020207, at left end of Bluewater Dam on Bluewater Creek, and 9.5 mi (15.2 km) west of Bluewater.

DRAINAGE AREA.--201 mi² (521 km²).

PERIOD OF RECORD.--June 1927 to December 1950 (monthend contents only, published in WSP 1732), April 1958 to current year (monthend contents only).

GAGE.--Water-stage recorder. Datum of gage is 7,345.57 ft (2,238.930 m) National Geodetic Vertical Datum of 1929. July 1958 to January 1961, nonrecording gage at nearby site, same datum. Gage heights have been converted to sea-level elevations.

REMARKS.--Reservoir is formed by concrete arch dam. Storage began in 1927. Capacity, 38,500 acre-ft (47.5 hm³) survey of 1945 at elevation 7,402.6 ft (2,256.31 m) crest of uncontrolled siphon spillway which is vented to avoid drawdown below crest, and 44,200 acre-ft (54.5 hm³) at elevation 7,405.6 ft (2,257.23 m) crest of ungated spillway over dam. Capacity table used through 1944 showed a capacity of 50,300 acre-ft (62.0 hm³) at crest of ungated spillway over dam, and that used from 1945-50, 43,500 acre-ft (53.6 hm³). Tables used prior to 1958 are not available and no adjustments are made for changes in tables. Dead storage, 3.4 acre-ft (4,190 m³) at elevation 7,345.4 ft (2,238.88 m) sill of lower outlet tube. Lake not usually drawn below conservation pool level elevation, 7,365.36 ft (2,244.962 m), below which ownership is by State Game and Fish Department. Above this level, water is owned and used by Bluewater-Toltec Irrigation Co. Figures given herein represent total contents at 2400 hours.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents determined, 47,100 acre-ft (58.1 hm³) Apr. 30, 1941. Contents may have been greater on Apr. 28, 1941 when peak discharge of 800 ft³/s (22.7 m³/s) occurred at station 8 mi (13 km) downstream; no storage at times prior to 1947.

EXTREMES FOR CURRENT YEAR.--Maximum contents, about 34,000 acre-ft (41.9 hm³) in May, elevation, about 7,400.0 ft (2,255.52 m); minimum, 2,780 acre-ft (3.43 hm³) Dec. 15-18, elevation, 7,363.4 ft (2,244.36 m).

MONTHEND ELEVATION AND CONTENTS, AT 2400, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

	Elevation (feet)	Contents (acre-feet)	Change in contents (acre-feet)
Sept. 30	7364.2	3010	——
Oct. 31	7363.7	2870	-140
Nov. 30	7363.5	2820	-50
Dec. 31	7363.5	2820	0
CAL YR 1978			+730
Jan. 31	7363.8	2900	+80
Feb. 28	7367.5	4060	+1160
Mar. 31	7383.0	13330	+9270
Apr. 30	7400.0	34000	+20670
May 31	7395.6	27600	-6400
June 30	7393.7	25070	-2530
July 31	7391.2	21920	-3150
Aug. 31	7389.3	19610	-2310
Sept. 30	7387.7	17800	-1810
WTR YR 1979			+14790

08342600 SAN MATEO CREEK NEAR SAN MATEO, NM

LOCATION.--Lat 35°20'46", long 107°46'31", in NW¼NE¼ sec.22, T.13 N., R.9 W., McKinley County, Hydrologic Unit 13020207, on right bank, 0.3 mi (0.5 km) southeast of intersections of State Highways 53 and 509, 1.4 mi (2.3 km) upstream from Arroyo del Puerto, 8.2 mi (13.2 km) west of San Mateo and 15 mi (24 km) north of Grants.

DRAINAGE AREA.--75.6 mi² (195.8 km²).

PERIOD OF RECORD.--May 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,800 ft (2,073 m) from topographic map.

REMARKS.--Records fair except those for winter periods, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 628 ft³/s (17.8 m³/s) Aug. 12, 1977, gage height, 5.80 ft (1.768 m), from slope-area measurement of peak flow; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35 ft³/s (0.99 m³/s) July 16, gage height, 3.54 ft (1.079 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.37	.00	.00	.14	1.0	.20	.00	.00	.00	.00	.00	.00
2	.38	.00	.00	.09	1.5	.04	.00	.00	.00	.09	.00	.00
3	.40	.30	.00	.25	1.8	.05	.00	.00	.00	.02	.00	.00
4	.39	.47	.00	1.5	1.5	.02	.00	.00	.00	.02	.00	.00
5	.41	.26	.00	1.6	1.0	.00	.00	.00	.00	.00	.00	.00
6	.45	.23	.00	1.8	1.1	.02	.00	.00	.00	.00	.00	.00
7	.47	.18	.00	1.0	1.0	.05	.00	.00	.00	.00	.00	.00
8	.49	.36	.00	.30	.55	.04	.00	.00	.00	.00	.00	.00
9	.49	.35	.00	.30	.07	.00	.00	.00	.00	.00	.00	.00
10	.51	.17	.00	.40	.00	.05	.00	.00	.00	.00	.00	.00
11	.53	.16	.00	.46	.10	.06	.00	.00	.00	.00	.00	.00
12	.57	.14	.01	.99	8.2	.07	.00	.00	.00	.04	.00	.11
13	.55	.24	.01	1.0	12	.09	.00	.00	.00	.09	.00	.00
14	.58	.10	.07	1.0	10	.19	.00	.00	.00	.00	.71	.01
15	.58	.00	1.0	.80	5.9	.32	.00	.00	.00	.00	1.1	.00
16	.58	.03	.78	.80	3.6	.32	.07	.19	.00	2.5	2.9	.00
17	.63	.01	1.9	.50	1.4	.31	.43	.29	.00	.10	1.0	.47
18	.69	.01	1.6	.30	.97	.02	.47	.00	.00	.09	.08	1.6
19	.39	.00	.44	.20	.83	.00	.55	.00	.00	.22	.08	.95
20	.32	.04	.19	.00	.74	.00	.57	.08	.00	.20	.05	.32
21	.32	.01	.16	.00	.60	.00	.67	.34	.00	.10	.05	.36
22	.28	.00	.51	.00	.49	.06	.75	.00	.00	.05	.00	.24
23	.24	.02	.62	.00	.39	.00	.76	.00	.00	.00	.01	.24
24	.21	.34	.85	.00	.21	.00	.67	.00	.00	.00	.08	.22
25	.20	.48	1.9	.30	.25	.00	.62	.20	.00	.00	.07	.16
26	.00	.23	2.3	.50	.29	.00	.64	.45	.00	.00	.07	.13
27	.00	.19	2.2	.50	.25	.00	.30	.47	.00	.00	.07	.18
28	.00	.10	1.3	.50	.21	.00	.00	.40	.00	.00	.08	.14
29	.00	.05	.86	.50	---	.00	.00	.30	.00	.00	.03	.13
30	.00	.01	.88	1.0	---	.00	.00	.00	.00	.00	.00	.15
31	.00	---	1.5	1.0	---	.00	---	.00	---	.00	.03	---
TOTAL	11.03	4.48	19.08	17.73	55.95	1.91	6.50	2.72	.00	3.52	6.41	5.41
MEAN	.36	.15	.62	.57	2.00	.062	.22	.088	.000	.11	.21	.18
MAX	.69	.48	2.3	1.8	12	.32	.76	.47	.00	2.5	2.9	1.6
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	22	8.9	38	35	111	3.8	13	5.4	.00	7.0	13	11

CAL YR 1978 TOTAL 577.74 MEAN 1.58 MAX 30 MIN .00 AC-FT 1150
WTR YR 1979 TOTAL 134.74 MEAN .37 MAX 12 MIN .00 AC-FT 267

08343000 RIO SAN JOSE AT GRANTS, NM

LOCATION.--Lat 35°09'16", long 107°52'11", in SW¼NW¼ sec.26, T.11 N., R.10 W., Valencia County, Hydrologic Unit 13020207, on right bank at bridge on old State Highway 53 in Grants, 0.2 mi (0.3 km) south of old U.S. Highway 66, and at mile 67.8 (109.1 km).

DRAINAGE AREA.--1,020 mi² (2,640 km²), approximately.

PERIOD OF RECORD.--October 1912 to February 1914, June 1914, October 1914 to February 1915, May 1915 to June 1921, September 1921 to June 1923, October 1923 to May 1926, September to December 1926, May 1949 to September 1966, June 1968 to current year. Monthly discharge only for some periods published in WSP 1312. Prior to October 1967, published as "Bluewater Creek at Grants".

REVISED RECORDS.--WSP 1512: 1913-14. WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 6,468.34 ft (1,971.550 m) National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). See WSP 1732 or 1923 for history of changes prior to Jan. 1, 1926.

REMARKS.--Records fair. Flow slightly regulated by Bluewater Lake (station 08341400) 24 mi (39 km) upstream. Diversions and groundwater withdrawals for irrigation of about 4,500 acres (18 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--38 years (water years 1913, 1915-20, 1922, 1924-25, 1950-66, 1968-79), 3.17 ft³/s (0.090 m³/s), 2,300 acre-ft/yr (2.84 hm³/yr).

EXTREMES FOR PERIOD OF RECORD (1950-66 AND SINCE 1968).--Maximum discharge recorded, 1,760 ft³/s (49.8 m³/s) Aug. 28, 1952, gage height, 5.35 ft (1.631 m), from rating curve extended above 300 ft³/s (8.50 m³/s) on basis of velocity-area studies; no flow for long periods.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood observed occurred Sept. 6 or 7, 1909, when Bluewater Dam washed out. A flood in July 1919 probably exceeded the one in 1952.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 298 ft³/s (8.44 m³/s) at 0030 hours Aug. 16, gage height, 3.56 ft (1.085 m), no other peak above base of 200 ft³/s (5.7 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.6	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	38	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.85	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.37	.08	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.78	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.06	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.96	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.54	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	2.70	.00	1.21	42.53	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.087	.000	.039	1.37	.000
MAX	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.78	38	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	5.4	.00	2.4	84	.00

CAL YR 1978 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00
WTR YR 1979 TOTAL 46.44 MEAN .13 MAX 38 MIN .00 AC-FT 92

08343100 GRANTS CANYON AT GRANTS, NM

LOCATION.--Lat 35°09'39", long 107°50'15", in NE¼NE¼ sec.25, T.11 N., R.10 W., Valencia County, Hydrologic Unit 13020207, on Roosevelt Avenue, in Grants, 0.2 mi (0.3 km) east of intersection of Roosevelt and First Avenue, and 1.1 mi (1.8 km) upstream from confluence with Rio San Jose (formerly Bluewater Creek).

DRAINAGE AREA.--13.0 mi^2 (33.7 km^2).

PERIOD OF RECORD.--December 1961 to current year.

GAGE.--Water-stage recorder and culvert control. Altitude of gage is 6,450 ft (1,966 m), from topographic map.

REMARKS.--Records fair.

AVERAGE DISCHARGE.--18 years, 0.157 ft^3/s (0.004 m^3/s), 114 acre-ft/yr (140,600 m^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,550 ft^3/s (43.9 m^3/s) Aug. 26, 1963, gage height, 5.10 ft (1.554 m), from rating curve extended above 220 ft^3/s (6.23 m^3/s) on basis of slope-area measurements at gage heights 3.17 ft (0.966 m), 5.10 ft (1.554 m), and 5.38 ft (1.640 m); maximum gage height, 5.38 ft (1.640 m) Sept. 8, 1967; no flow for most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 60 ft^3/s (1.70 m^3/s) at 2200 hours July 18, gage height, 1.00 ft (0.305 m), no peak above base of 175 ft^3/s (5.0 m^3/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.01	.06	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.34	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.09	.06	.00	.00	.00	.00	.00	1.24	.34	.00
MEAN	.000	.000	.003	.002	.000	.000	.000	.000	.000	.040	.011	.000
MAX	.00	.00	.05	.06	.00	.00	.00	.00	.00	1.2	.34	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.2	.1	.00	.00	.00	.00	.00	2.5	.7	.00

CAL YR 1978 TOTAL 0.55 MEAN .002 MAX .46 MIN .00 AC-FT 1.1
WTR YR 1979 TOTAL 1.73 MEAN .005 MAX 1.2 MIN .00 AC-FT 3.4

08343500 RIO SAN JOSE NEAR GRANTS, NM

LOCATION.--Lat 35°04'27", long 107°45'01", in SE¼SE¼ sec.23, T.10 N., R.9 W., Valencia County, Hydrologic Unit 13020207, on right bank at west boundary of Acoma Pueblo Grant, 8.5 mi (13.7 km) southeast of Grants, and at mile 57.4 (92.4 km).

DRAINAGE AREA.--2,300 mi² (5,960 km²), approximately, of which 1,130 mi² (2,930 km²) does not contribute directly to surface runoff.

PERIOD OF RECORD.--June 1936 to current year. Prior to October 1955, published as "San Jose River near Grants".

REVISED RECORDS.--WSP 898: 1936-39(M). WSP 1512: 1943. WSP 1712: Drainage area.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 6,269.47 ft (1,910.934 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow slightly regulated by Bluewater Lake (station 08341400), 34 mi (55 km) upstream. Diversions and ground-water withdrawal for irrigation of about 5,100 acres (21 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--43 years, 6.49 ft³/s (0.184 m³/s), 4,700 acre-ft/yr (5.80 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,400 ft³/s (39.6 m³/s) Sept. 20, 1963, gage height, 4.87 ft (1.484 m), from rating curve extended above 450 ft³/s (12.7 m³/s) on basis of slope-area measurements at gage heights 3.19 ft (0.972 m) and 4.87 ft (1.484 m); minimum, 1.9 ft³/s (0.054 m³/s) Feb. 21, 1973.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood probably occurred Sept. 6 or 7, 1909, following destruction of Bluewater dam. The peak of Sept. 20, 1963 may have been exceeded by those of July 1919, August and September 1929, and August 1935.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 27 ft³/s (0.76 m³/s) at 2200 hours Feb. 14, gage height, 1.77 ft (0.539 m), no peak above base of 100 ft³/s (2.83 m³/s); minimum daily, 3.7 ft³/s (0.10 m³/s) Sept. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.6	5.2	7.2	6.9	7.6	5.7	6.0	7.3	8.1	4.7	4.6	5.6
2	4.6	4.9	7.2	6.4	7.4	5.7	6.0	7.1	8.6	4.9	4.8	5.8
3	4.4	8.1	7.5	7.5	7.2	5.7	6.0	6.9	8.0	5.1	5.1	5.7
4	4.4	7.2	7.5	7.8	7.5	6.1	6.1	6.9	8.2	5.0	4.8	5.2
5	4.4	6.7	7.0	8.4	7.5	6.1	6.0	6.9	8.7	4.9	5.4	5.5
6	4.5	5.6	7.0	8.6	7.0	6.1	6.1	6.9	8.7	4.9	5.2	5.8
7	4.5	5.6	7.0	8.7	6.8	6.1	6.0	7.3	8.1	5.1	5.6	5.1
8	4.6	5.8	6.8	8.2	7.1	5.7	6.1	7.4	7.9	5.2	5.4	5.1
9	4.6	5.7	6.8	8.1	6.6	5.7	6.5	7.6	7.7	5.2	5.7	5.4
10	4.6	6.0	6.8	8.2	6.6	5.7	6.7	7.8	7.6	5.4	6.0	5.0
11	4.5	6.0	6.8	8.3	6.4	5.7	6.5	7.5	7.4	5.4	5.9	5.0
12	4.5	5.5	7.0	8.2	6.3	6.1	6.5	7.5	7.1	5.5	5.9	4.7
13	4.6	5.5	7.2	7.9	6.5	6.1	6.5	7.5	7.1	5.6	5.0	4.6
14	4.6	6.0	7.2	7.2	10	6.1	6.4	7.3	7.0	5.6	5.0	4.7
15	4.6	6.0	7.3	7.2	12	6.1	6.4	7.4	6.3	5.7	5.0	5.3
16	4.5	6.0	7.5	7.4	10	6.1	6.1	8.0	6.5	5.8	5.5	4.9
17	4.8	6.5	7.6	8.0	6.4	6.1	6.3	7.9	6.0	5.5	8.8	4.9
18	4.9	6.5	8.5	10	5.7	6.1	6.3	7.8	5.9	5.7	7.3	4.7
19	4.9	6.0	10	13	5.3	6.1	6.8	7.8	6.1	6.0	5.7	4.6
20	5.1	6.5	7.6	8.5	5.0	6.1	6.7	8.1	5.6	7.4	5.3	4.8
21	5.9	6.5	6.9	7.9	5.0	6.1	6.9	9.1	5.5	6.9	6.7	5.0
22	6.0	6.5	7.3	8.1	5.4	6.1	6.7	9.1	5.6	6.4	6.1	4.6
23	5.8	7.0	7.1	7.0	5.1	6.1	6.8	8.0	5.2	5.6	6.1	4.4
24	5.7	7.0	6.9	7.3	4.9	6.1	6.8	7.7	5.2	5.8	6.3	4.3
25	5.1	8.0	6.4	7.6	5.3	6.1	6.8	7.6	5.2	5.8	6.3	4.0
26	5.3	8.0	6.3	8.0	5.3	6.1	6.7	8.7	5.1	5.9	6.4	4.1
27	5.6	7.5	6.8	7.9	5.3	6.1	6.8	9.7	5.2	6.2	7.0	4.2
28	5.5	7.0	7.2	7.9	5.3	6.1	7.3	9.0	4.9	6.6	7.2	3.7
29	5.4	7.0	7.5	7.7	---	6.1	7.3	8.3	4.9	6.3	7.2	3.8
30	5.7	7.0	8.2	7.8	---	6.0	7.3	8.5	5.0	4.4	6.5	3.9
31	5.6	---	8.4	7.4	---	6.0	---	8.6	---	4.5	5.9	---
TOTAL	153.8	192.8	226.5	249.1	186.5	186.1	195.4	243.2	198.4	173.0	183.7	144.4
MEAN	4.96	6.43	7.31	8.04	6.66	6.00	6.51	7.85	6.61	5.58	5.93	4.81
MAX	6.0	8.1	10	13	12	6.1	7.3	9.7	8.7	7.4	8.8	5.8
MIN	4.4	4.9	6.3	6.4	4.9	5.7	6.0	6.9	4.9	4.4	4.6	3.7
AC-FT	305	382	449	494	370	369	388	482	394	343	364	286

CAL YR 1978 TOTAL 2421.1 MEAN 6.63 MAX 19 MIN 4.3 AC-FT 4800
WTR YR 1979 TOTAL 2332.9 MEAN 6.39 MAX 13 MIN 3.7 AC-FT 4630

08349800 RIO PAGUATE BELOW JACKPILE MINE NEAR LAGUNA, NM

LOCATION.--Lat 35°07'09", long 107°19'58", in SW¼SE¼ sec. 2, T.10 N., R.5 W., Valencia County, Hydrologic Unit 13020207, in Paguate Purchase Grant, near right bank on downstream end of bridge piling of the Atchison, Topeka and Santa Fe Railway Co. bridge, 1.4 mi (2.3 km) downstream from Rio Moquino, 4.2 mi (6.8 km) upstream from Paguate Reservoir, 5.0 mi (8.0 km) southeast of Paguate and 26 mi (42 km) east of Grants.

DRAINAGE AREA.--107 mi² (277 km²).

PERIOD OF RECORD.--March 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,820 ft (1,774 m), from topographic map.

REMARKS.--Water-discharge records poor. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,300 ft³/s (65.1 m³/s) Aug. 24, 1976, gage height, 8.60 ft (2.621 m), from slope-area measurement of peak flow; minimum, 0.04 ft³/s (0.001 m³/s) at times in July and August, 1977 and August 3, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 15	0615	194	5.49	3.73	1.137
Sept. 13	1800	*221	6.26	3.76	1.146

Minimum discharge, 0.04 ft³/s (0.001 m³/s) Aug. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.14	.47	.91	.65	3.0	1.9	1.4	1.6	1.6	.23	.10	.41
2	.12	.49	.94	.65	3.0	2.2	1.4	1.7	.76	.25	.07	.40
3	.12	6.0	.83	1.0	2.9	2.5	1.4	1.7	.88	.23	.07	.45
4	.11	1.1	.99	1.0	3.1	2.3	1.3	1.5	.72	.25	.07	.41
5	.10	.94	1.3	1.0	2.4	2.6	1.3	1.3	.80	.14	.08	.39
6	.11	.90	1.1	1.0	1.7	2.8	1.2	1.2	.80	.26	.08	.36
7	.11	.88	1.0	2.0	1.6	3.2	1.2	1.1	.84	.26	.19	.38
8	.09	.88	1.0	2.0	1.5	7.9	1.3	1.1	.84	.20	.19	.40
9	.08	.88	1.0	2.0	1.5	7.0	1.3	1.2	.80	.20	.20	.40
10	.08	.88	.80	2.0	1.9	6.0	1.3	1.1	.80	.17	.60	.41
11	.07	7.8	.80	2.0	2.0	5.0	1.3	1.0	.80	.17	.60	.43
12	.06	2.9	.80	2.0	2.4	4.0	1.4	.99	.64	.15	.32	.43
13	.06	1.5	.80	2.0	2.7	7.0	1.3	.99	.51	.14	1.3	11
14	.07	1.5	.80	1.8	7.0	7.1	1.3	.95	.48	.14	1.1	.76
15	.07	1.6	.75	2.0	10	5.7	1.3	1.0	.51	.21	14	.60
16	.06	1.4	.70	2.5	5.0	5.2	1.3	1.1	.48	.15	7.0	.50
17	.06	1.2	.70	2.0	4.0	4.6	1.3	1.1	.45	.15	4.0	.50
18	.07	1.2	.70	2.0	3.0	3.9	1.3	1.1	.45	.14	2.0	.50
19	.07	1.1	.70	2.0	2.0	3.6	1.3	1.1	.42	.14	1.0	.42
20	.09	1.2	.70	2.2	2.0	3.7	1.3	1.2	.48	.14	1.0	.41
21	.46	1.2	.70	2.2	1.5	3.4	1.3	1.1	.42	.14	.64	.41
22	.63	1.2	.70	2.0	1.5	2.9	1.4	.93	.34	.13	.47	.35
23	.32	1.1	.70	4.0	1.5	2.5	1.3	.93	.32	.13	.44	.33
24	.60	1.9	.70	3.0	1.5	2.2	1.4	1.1	.30	.10	.44	.32
25	.42	2.7	.70	3.5	1.5	1.9	1.4	1.2	.26	.10	.43	.30
26	.39	1.0	.65	1.8	1.5	1.7	1.5	1.0	.24	.10	.46	.31
27	.41	.98	.65	2.5	1.4	1.7	1.6	.94	.22	.10	.44	.32
28	.42	.98	.65	2.0	1.5	1.7	1.6	1.0	.22	.10	.42	.33
29	.50	.93	.65	2.0	---	1.6	1.6	.99	.18	.10	.40	.30
30	.50	.92	.65	2.0	---	1.5	1.6	.95	.18	.10	.41	.28
31	.46	---	.65	3.0	---	1.5	---	.98	---	.10	.40	---
TOTAL	6.85	47.73	24.72	61.80	74.6	110.8	40.9	35.15	16.74	4.92	38.92	22.81
MEAN	.22	1.59	.80	1.99	2.66	3.57	1.36	1.13	.56	.16	1.26	.76
MAX	.63	7.8	1.3	4.0	10	7.9	1.6	1.7	1.6	.26	14	11
MIN	.06	.47	.65	.65	1.4	1.5	1.2	.93	.18	.10	.07	.28
AC-FT	14	95	49	123	148	220	81	70	33	9.8	77	45

CAL YR 1978 TOTAL 410.87 MEAN 1.13 MAX 42 MIN .06 AC-FT 815
WTR YR 1979 TOTAL 485.94 MEAN 1.33 MAX 14 MIN .06 AC-FT 964

08351500 RIO SAN JOSE AT CORREO, NM

LOCATION.--Lat 34°58'03", long 107°10'10", in NE¼ sec.32, T.9 N., R.3 W., Valencia County, Hydrologic Unit 13020207, on left bank 0.3 mi (0.5 km) downstream from State Highway 6, 1.2 mi (1.9 km) northeast of Correo, and 13 mi (21 km) upstream from mouth.

DRAINAGE AREA.--3,660 mi² (9,480 km²), approximately, of which about 1,130 mi² (2,930 km²) does not contribute directly to surface runoff.

PERIOD OF RECORD.--April 1943 to current year. Prior to October 1955, published as "San Jose River at Correo".

GAGE.--Water-stage recorder and concrete control. Datum of gage is 5,474.88 ft (1,668.743 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1958 to Sept. 30, 1975, water-stage recorder at site 1 mi (1.6 km) upstream at datum 17.55 ft (5.349 m) higher.

REMARKS.--Records fair. Flow regulated to some extent since 1927 by Bluewater Lake (station 08341400) 79 mi (127 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years, 11.2 ft³/s (0.317 m³/s), 8,110 acre-ft/yr (10.0 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,150 ft³/s (202 m³/s) Aug. 11, 1955; maximum gage height, 20.7 ft (6.31 m), Aug. 22, 1958, backwater from dam (present datum); no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood which probably occurred Aug. 21, 1935, reached a stage of 15.4 ft (4.69 m), from floodmarks, (discharge, about 11,000 ft³/s or 312 m³/s), but was probably exceeded by the flood of Sept. 23, 1929 (discharge not determined), based on study of records for Rio Puerco at Rio Puerco.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 83 ft³/s (2.35 m³/s) at 1930 hours May 24, gage height, 2.17 ft (0.661 m), no peak above base of 800 ft³/s (23 m³/s); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	3.4	3.0	5.0	6.3	1.6	.00	.00	.00	.00	.00
2	.00	.00	2.6	.00	6.0	6.5	2.7	.00	.00	1.7	.00	.00
3	.00	.00	1.3	.10	9.0	5.8	3.2	.00	.00	.47	.00	.00
4	.00	1.6	2.2	3.0	7.5	5.1	3.5	.00	.00	.00	.00	.00
5	.00	1.5	3.4	2.0	7.5	5.3	3.6	.00	.00	.00	.00	.00
6	.00	5.1	3.6	.55	7.5	4.6	3.6	.00	.00	.00	.00	.00
7	.00	1.6	.92	1.0	7.5	4.5	3.7	.00	.00	.00	.00	.00
8	.00	.57	.00	2.0	8.0	5.6	3.4	.00	.74	.00	.00	.00
9	.00	.00	.00	2.5	8.5	28	3.9	.00	.00	.00	.00	.00
10	.00	.00	.00	3.0	9.0	23	4.3	.00	.00	.00	.00	.00
11	.00	.38	.00	3.0	9.6	11	4.6	.00	.00	.00	.81	.00
12	.00	4.8	.00	5.0	9.1	9.0	4.4	.00	.00	.00	.01	.00
13	.00	1.8	.00	5.0	8.4	8.4	4.7	.00	.00	.00	.00	.00
14	.00	1.4	.00	4.0	7.8	8.4	2.3	.00	.00	.00	.00	.00
15	.00	1.4	.00	5.0	7.4	9.1	2.2	.00	.00	.00	9.8	.00
16	.00	1.2	.00	6.0	9.8	7.7	2.6	.05	.00	.00	11	.00
17	.00	.76	.73	6.8	17	6.2	2.6	.00	.00	.00	2.8	.00
18	.00	.01	2.2	8.1	16	5.8	2.4	.00	.00	.00	.31	.00
19	.00	.00	4.9	7.8	14	5.8	2.0	.00	.00	.00	2.7	.00
20	.00	.00	3.6	6.5	11	5.8	1.8	.00	.00	.00	1.6	.00
21	.00	.10	7.8	6.5	9.4	6.4	1.6	.00	.00	.00	.10	.00
22	.00	.55	8.1	7.8	9.9	6.3	2.3	.00	.00	.00	.00	.00
23	.00	1.3	7.8	2.9	8.7	5.4	3.0	.00	.00	.00	.00	.00
24	.00	2.9	4.9	3.0	8.2	5.6	.52	13	.00	.00	.00	.00
25	.00	3.6	4.4	3.0	8.2	4.9	.36	4.2	.00	.00	.00	.00
26	.00	3.1	4.2	4.0	6.8	4.4	.00	.14	.00	.00	.00	.00
27	.00	5.5	2.9	4.0	6.7	4.3	.00	.00	.00	.00	.00	.00
28	.00	6.5	4.9	5.0	6.4	4.7	.00	.00	.00	.00	.00	.00
29	.00	6.2	12	6.0	---	5.5	.00	.00	.00	.00	.00	.00
30	.00	4.9	7.4	5.5	---	5.1	.00	.00	.00	.00	.00	.00
31	.00	---	7.8	3.4	---	4.8	---	.00	---	.00	.00	---
TOTAL	.00	56.77	101.05	125.45	249.9	229.3	70.88	17.39	.74	2.17	29.13	.00
MEAN	.000	1.89	3.26	4.05	8.93	7.40	2.36	.56	.025	.070	.94	.000
MAX	.00	6.5	12	8.1	17	28	4.7	13	.74	1.7	11	.00
MIN	.00	.00	.00	.00	5.0	4.3	.00	.00	.00	.00	.00	.00
AC-FT	.00	113	200	249	496	455	141	34	1.5	4.3	58	.00

CAL YR 1978 TOTAL 734.10 MEAN 2.01 MAX 60 MIN .00 AC-FT 1460
WTR YR 1979 TOTAL 882.78 MEAN 2.42 MAX 28 MIN .00 AC-FT 1750

08353000 RIO PUERCO NEAR BERNARDO, NM

LOCATION.--Lat 34°24'33", long 106°51'09", in SE¼ sec.8, T.2 N., R.1 E., Socorro County, Hydrologic Unit 13020204, on bridge on former U.S. Highway 85 and 0.2 mi (0.3 km) upstream from Interstate Highway 25, 1.2 mi (1.9 km) southwest of Bernardo, 3 mi (4.8 km) upstream from mouth, and 18 mi (29 km) south of Belen.

DRAINAGE AREA.--7,350 mi² (19,040 km²), approximately, of which at least 1,130 mi² (2,930 km²) does not contribute directly to surface runoff.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1939 to current year. Fragmentary gage height record and footnotes concerning no flow for the period September 1910 to August 1914, published in WSP 358 and 388, are in error and should not be used.

REVISED RECORDS.--WSP 1512: 1941-42, 1944-45, 1946(P), 1947-49. WSP 1632: 1957. WSP 1732: Drainage area. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 4,722.34 ft (1,439.369 m) National Geodetic Vertical Datum of 1929. Prior to Jan. 24, 1969, at datum 3.10 ft (0.945 m) higher.

REMARKS.--Water-discharge records poor. Diversions for irrigation of about 11,500 acres (47 km²) above station (includes 3,700 acres or 15.0 km² irrigated wholly or partly from wells).

AVERAGE DISCHARGE.--39 years (water years 1941-79), 47.2 ft³/s (1.337 m³/s), 34,200 acre-ft/yr (42.2 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,800 ft³/s (532 m³/s) Sept. 23, 1941, from rating curve extended above 7,800 ft³/s (221 m³/s); maximum gage height, 16.9 ft (5.15 m) present datum, Aug. 12, 1955; no flow for extended periods.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since about 1880 occurred Sept. 23, 1929, from information by local residents (discharge, about 35,000 ft³/s or 991 m³/s, estimated on basis of peak at Rio Puerco). Another flood occurred Aug. 12, 1929 (discharge, 30,600 ft³/s or 867 m³/s, by slope-area method, from reports of State Engineer).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,960 ft³/s (55.5 m³/s) at 0830 hours Feb. 17, gage height, 10.47 ft (3.191 m), no peak above base of 2,000 ft³/s (57 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.0	.00	.00	42	12	30	102	.00	.00	.00
2	.00	.00	1.0	.00	.00	32	8.5	31	146	19	.00	.00
3	.00	.00	1.0	.00	.00	46	6.6	39	276	42	.00	.00
4	.00	.00	1.0	.00	.00	25	3.6	33	100	5.0	.00	.00
5	.00	187	1.0	.00	.00	20	2.4	42	90	.00	.00	.00
6	.00	82	.10	.00	.00	36	1.2	30	80	.32	.00	.00
7	.00	55	.00	.00	.00	23	.40	15	78	80	.00	.00
8	.00	44	.00	.00	.00	86	.00	8.5	201	.98	.00	.00
9	.00	42	.00	.00	.00	434	.00	7.3	115	.00	.00	.00
10	.00	4.0	.00	.00	.00	400	.00	23	95	.00	.00	.00
11	.00	2.0	.00	.00	.00	200	.00	73	90	.00	.00	.00
12	.00	1.0	.00	.00	.00	129	.00	56	90	.00	6.2	.00
13	.00	152	.00	.00	.00	143	.00	40	48	.00	42	.00
14	.00	45	.00	.00	180	159	.00	15	33	.00	22	.00
15	.00	30	.00	.00	467	180	2.8	10	31	.00	19	1.0
16	.00	27	.00	.00	936	188	4.3	8.0	26	.00	89	.00
17	.00	26	.00	.00	1130	139	1.9	5.7	24	.00	177	.00
18	.00	7.0	.00	.00	470	143	.00	7.6	23	.00	50	.00
19	.00	3.0	.00	173	350	154	.00	21	10	.00	20	.00
20	.00	1.0	.00	263	100	87	.00	42	5.0	.00	10	.00
21	10	.00	.00	104	100	20	.00	72	1.0	.00	5.0	.00
22	1.0	.00	25	20	80	15	44	154	.00	.00	3.0	.00
23	.50	.00	30	5.0	40	10	45	127	.00	.00	1.0	.00
24	.00	.00	3.0	3.0	25	8.0	36	98	.00	11	.30	.00
25	.00	.00	.00	2.0	25	7.0	46	136	.00	4.5	.00	.00
26	.00	.00	.00	2.0	25	9.6	62	159	.00	2.5	.00	.00
27	.00	.00	.00	2.0	19	7.0	47	167	.00	1.6	.00	.00
28	.00	11	5.0	.00	19	3.8	42	165	.00	.67	.00	.00
29	.00	1.0	3.0	.00	---	2.4	41	178	.00	.98	.00	.00
30	.00	1.0	1.0	.00	---	1.6	39	176	.00	.05	.00	.00
31	.00	---	1.0	.00	---	2.8	---	163	---	.00	.00	---
TOTAL	11.50	721.00	73.10	574.00	3966.00	2753.2	445.70	2132.1	1664.00	168.60	444.50	1.00
MEAN	.37	24.0	2.36	18.5	142	88.8	14.9	68.8	55.5	5.44	14.3	.033
MAX	10	187	30	263	1130	434	62	178	276	80	177	1.0
MIN	.00	.00	.00	.00	.00	1.6	.00	5.7	.00	.00	.00	.00
AC-FT	23	1430	145	1140	7870	5460	884	4230	3300	334	882	2.0

CAL YR 1978 TOTAL 2396.30 MEAN 6.57 MAX 321 MIN .00 AC-FT 4750
WTR YR 1979 TOTAL 12954.70 MEAN 35.5 MAX 1130 MIN .00 AC-FT 25700

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1947 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1956 to current year.
WATER TEMPERATURES: October 1964 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1947 to current year.

REMARKS.--Chemical analyses are run on composite samples collected during the day of period indicated. Composite analyses are made by using equal volumes of each daily sample. Samples are collected when flow is observed on this ephemeral stream.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 11,400 micromhos June 10, 1968; minimum daily, 238 micromhos July 30, 1969.
WATER TEMPERATURES: Maximum, 32.0°C July 29, 1977; minimum, 0.0°C Dec. 30, 1971.
SEDIMENT CONCENTRATIONS: Maximum daily, 267,000 mg/L July 26, 1957; minimum daily, no flow on many days of each year.
SEDIMENT LOADS: Maximum daily, 2,240,000 tons (2,030,000 tonnes) Aug. 7, 1957; minimum daily, 0 tons (0 tonnes) on many days of each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,590 micromhos Nov. 28; minimum daily, 857 micromhos July 7.
WATER TEMPERATURES: Maximum, 26.0°C June 16; minimum, 1.0°C Dec. 6.
SEDIMENT CONCENTRATIONS: Maximum daily, 180,000 mg/L Aug. 17; minimum daily, no flow on many days.
SEDIMENT LOADS: Maximum daily, 278,000 tons (252,000 tonnes) Feb. 17; minimum daily, 0 tons (0 tonnes) on many days.

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW (CFS) (00060)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
NOV											
04-19	47	2100	7.5	680	540	200	43	250	4.2	10	140
28...	11	4590	7.6	990	790	240	96	690	9.5	22	200
29-30	1.0	2060	7.8	580	440	170	37	290	5.3	10	140
DEC											
01-03	1.0	2340	7.5	630	420	180	43	330	5.7	9.3	210
28-31	2.5	1500	7.8	320	210	94	20	190	4.6	5.0	110
JAN											
21-27	20	1670	7.6	410	260	120	26	230	5.0	7.7	150
29-30	.01	2240	7.8	530	370	150	38	330	6.2	8.2	160
FEB											
14...	180	2660	8.1	640	460	170	53	390	6.7	8.2	180
15-28	270	1390	8.1	310	180	91	21	210	5.2	5.7	130
MAR											
01-23	118	1670	7.9	380	250	110	26	280	6.2	--	130
24-27	7.9	2262	7.7	550	390	150	42	320	6.0	7.0	160
APR											
01-22	4.0	2920	7.7	730	540	200	57	430	6.9	9.0	190
23-30	44	2060	7.9	570	450	160	41	270	4.9	7.0	120
MAY											
01-22	35	1910	7.8	530	420	150	37	230	4.4	6.3	110
23-31	152	1750	7.8	540	450	140	45	220	4.1	5.9	88
JUN											
01-08	134	1970	7.7	520	390	150	35	210	4.0	6.5	130
09...	115	1190	7.6	310	180	95	18	150	3.7	7.3	130
10-19	47	2030	7.7	590	460	170	40	250	4.5	6.5	130
20-21	3.0	1070	7.6	260	85	78	17	110	2.9	6.1	180
JUL											
07...	80	857	7.4	230	41	71	13	83	2.4	6.2	190
AUG											
13-14	32	2860	7.0	1200	940	320	94	300	3.8	9.2	250
15-17	95	2180	7.2	730	540	210	49	250	4.0	7.9	190
18-22	18	1680	7.5	400	250	120	25	260	5.6	6.6	150
SEP											
15...	1.0	1060	7.7	180	82	56	9.3	140	4.6	5.6	96
WTD. AVG.	--	1720	7.9	448	319	128	31	239	5.0	6.5	129
TIME WTD. AVG.	72	2000	7.7	533	392	151	38	271	5.2	7.5	141
TOT. LOAD (TONS)	--	--	--	--	--	4260	1050	7980	--	171	4300

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
NOV											
04-19	1000	67	.6	11	--	1670	2.27	212	--	220	40
28...	1800	370	.7	17	--	3360	4.57	99.8	--	1200	50
29-30	980	80	.3	9.0	--	1660	2.26	4.48	--	260	40
DEC											
01-03	890	140	.4	6.7	--	1730	2.35	4.67	.28	--	--
28-31	540	66	.4	6.6	--	993	1.35	6.70	1.2	--	--
JAN											
21-27	610	79	.7	9.0	--	1180	1.60	63.7	1.1	--	--
29-30	810	170	.8	8.0	--	1620	2.20	.04	1.2	--	--
FEB											
14...	810	180	.9	11	--	1740	2.37	846	.88	--	--
15-28	550	40	.7	9.4	--	1010	1.37	736	1.1	--	--
MAR											
01-23	680	44	.7	9.0	--	1230	1.67	392	.78	--	--
24-27	830	130	.9	8.7	--	1590	2.16	33.9	.28	--	--
APR											
01-22	1200	180	.9	9.8	--	2200	2.99	23.8	.58	--	--
23-30	930	56	.8	8.4	--	1550	2.11	184	.46	--	--
MAY											
01-22	850	58	.9	7.3	--	1410	1.92	133	--	200	20
23-31	790	34	.9	7.3	--	1300	1.77	534	--	130	10
01-08	920	38	.7	10	--	1450	1.97	525	.45	--	--
09...	470	36	.7	13	--	871	1.18	270	.72	--	--
10-19	960	43	.8	10	--	1560	2.12	198	.46	--	--
20-21	330	39	.6	16	--	706	.96	5.72	.23	--	--
JUL											
07...	200	56	.7	19	--	564	.77	122	.17	--	--
AUG											
13-14	1400	67	.5	19	--	2360	3.21	204	.49	--	--
15-17	1100	50	.7	16	--	1800	2.45	462	.40	--	--
18-22	670	40	.8	11	--	1230	1.67	59.8	.72	--	--
SEP											
15...	240	110	.6	8.0	--	627	.85	1.69	--	120	10
WTD. AVG.	735	48	.7	9.4	--	1280	1.74	--	--	--	--
TIME WTD. AVG.	851	76	.8	9.5	--	1490	2.03	--	--	--	--
TOT. LOAD (TONS)	24600	1600	25	315	--	42700	--	--	--	--	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)
NOV											
05...	1630	187	13.0	112000	56500	63	73	90	100	--	--
07...	0945	50	11.0	87300	11800	72	86	100	--	--	--
DEC											
28...	1300	5.0	5.5	3730	50	73	85	90	93	98	100
JAN											
21...	1130	134	3.0	55000	19900	61	68	84	98	100	--
FEB											
14...	1515	323	4.0	113000	98500	46	55	66	94	99	100
16...	1616	880	3.0	132000	314000	38	45	56	87	97	100
17...	0800	1720	5.0	99800	463000	41	47	58	90	99	100
MAR											
02...	0730	9.0	7.5	46800	1140	72	79	96	99	100	--
18...	1400	145	10.5	75300	29500	55	69	83	97	100	--
APR											
04...	1355	3.5	17.0	52700	498	87	98	100	--	--	--
MAY											
17...	1500	6.5	22.0	82300	1440	82	94	99	100	--	--
31...	1445	163	21.0	135000	59400	39	49	62	88	97	100
JUN											
03...	1200	23	19.5	158000	9810	40	43	62	94	99	100
AUG											
17...	1330	1220	17.0	140000	461000	46	51	63	97	100	--

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	2180	---	---	1790	3330	1840	1890	---	---	---
2		---	2130	---	---	1840	2790	1840	1850	---	---	---
3		---	1980	---	---	1830	2690	1840	2150	---	---	---
4		---	---	---	---	1710	2920	1790	2030	---	---	---
5		2730	---	---	---	1560	2940	1780	1970	---	---	---
6		2150	2370	---	---	1610	3010	1760	1910	---	---	---
7		2000	---	---	---	1620	---	1770	1920	857	---	---
8		1860	---	---	---	1720	---	1850	2010	---	---	---
9		---	---	---	---	1860	---	1970	1190	---	---	---
10		2000	---	---	---	1640	---	2100	1890	---	---	---
11		---	---	---	---	1500	---	1970	1930	---	---	---
12		---	---	---	---	1460	---	1670	1960	---	---	---
13		1680	---	---	---	1550	---	1710	1960	---	3130	---
14		1890	---	---	2660	1640	---	1740	1940	---	2610	---
15		1910	---	---	1630	1580	---	1850	2000	---	2220	1010
16		1740	---	---	1660	1530	---	1960	2000	---	2170	---
17		1660	---	---	1400	1600	---	2090	2000	---	2140	---
18		1850	---	---	1240	1590	---	2260	2080	---	1650	---
19		1920	---	---	1230	1700	---	2280	2100	---	1720	---
20		---	---	---	1210	1650	---	2080	2180	---	1730	---
21		---	---	1410	1230	1810	---	1870	940	---	1780	---
22		---	---	1490	1230	1670	2740	1990	950	---	1530	---
23		---	---	1570	1220	1860	2370	1730	---	---	---	---
24		---	---	1810	1330	2070	2220	1780	---	---	---	---
25		---	---	1830	1370	2470	2150	1820	---	---	---	---
26		---	---	1810	1470	2230	2170	1400	---	---	---	---
27		---	---	1800	1600	2280	1940	1780	---	---	---	---
28		4590	1350	---	1590	---	1910	1800	---	---	---	---
29		1920	---	2280	---	---	1840	1780	---	---	---	---
30		2010	---	2190	---	---	1860	1800	---	---	---	---
31		---	1530	---	---	---	---	1860	---	---	---	---
MEAN		2130	1920	1800	1470	1750	2460	1860	1860	857	2070	1010

WTR YR 1979 MEAN 1890 MAX 4590 MIN 857

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1		---	5.5	---	---	6.5	11.5	13.5	16.5	---	---	
2		---	6.0	---	---	7.5	4.5	14.0	15.0	---	---	
3		---	5.0	---	---	6.5	6.5	12.5	19.5	---	---	
4		---	---	---	---	9.5	11.0	11.5	17.5	---	---	
5		14.0	---	---	---	---	7.5	12.5	16.5	---	---	
6		14.0	1.0	---	---	4.5	8.5	14.5	15.5	---	---	
7		8.0	---	---	---	6.5	---	13.5	18.5	24.0	---	
8		11.0	---	---	---	7.5	---	14.5	17.5	---	---	
9		---	---	---	---	9.0	---	12.5	14.5	---	---	
10		---	---	---	---	6.5	---	9.5	18.5	---	---	
11		---	---	---	---	9.5	---	9.5	15.5	---	---	
12		---	---	---	---	6.0	---	11.5	16.0	---	---	
13		10.0	---	---	---	6.5	---	11.5	16.5	---	24.0	
14		7.0	---	---	4.0	8.5	---	13.0	16.5	---	19.0	
15		7.5	---	---	8.5	9.5	---	13.5	17.5	---	19.0	
16		9.0	---	---	---	9.5	---	14.5	26.0	---	22.0	
17		6.5	---	---	5.0	9.5	---	18.0	---	---	20.0	
18		10.0	---	---	5.5	6.0	---	14.5	21.5	---	24.0	
19		9.0	---	---	6.0	8.5	---	16.0	20.0	---	23.0	
20		---	---	---	7.5	8.5	---	18.0	22.0	---	17.0	
21		---	---	3.0	7.5	7.5	---	11.5	19.0	---	19.0	
22		---	---	5.0	7.5	10.5	16.0	14.5	---	---	18.0	
23		---	---	3.0	5.0	4.5	13.5	16.5	---	---	---	
24		---	---	3.0	6.5	16.5	11.5	17.5	---	---	---	
25		---	---	5.0	9.5	14.5	13.5	16.5	---	---	---	
26		---	---	5.0	5.0	---	13.5	16.5	---	---	---	
27		---	---	4.0	5.5	9.5	13.5	14.5	---	---	---	
28		7.0	5.5	---	5.0	---	14.0	15.5	---	---	---	
29		4.5	---	2.5	---	---	15.5	16.0	---	---	---	
30		5.0	---	3.0	---	---	14.5	16.5	---	---	---	
31		---	7.5	---	---	---	---	16.5	---	---	---	
MEAN		9.0	5.0	3.5	6.5	8.5	11.5	14.0	18.0	24.0	20.5	

WTR YR 1979 MEAN 11.5 MAX 26.0 MIN 1.0

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

08353000 RIO PUERCO NEAR BERNARDO, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	.00	0	.0	66500	180	0	.0	0	.0	47300	5360
2	0	.00	0	.0	62200	168	0	.0	0	.0	46000	3970
3	0	.00	0	.0	67600	183	0	.0	0	.0	58500	7270
4	0	.00	0	.0	51200	138	0	.0	0	.0	59000	3980
5	0	.00	89200	57300	17400	47	0	.0	0	.0	55500	3000
6	0	.00	100000	22100	1670	.45	0	.0	0	.0	51900	5040
7	0	.00	86000	12800	0	.00	0	.0	0	.0	51500	3200
8	0	.00	78000	9270	0	.00	0	.0	0	.0	71200	21900
9	0	.00	72100	8180	0	.00	0	.0	0	.0	131000	146000
10	0	.00	65200	704	0	.00	0	.0	0	.0	143000	154000
11	0	.00	53700	290	0	.00	0	.0	0	.0	118000	63700
12	0	.00	37600	102	0	.00	0	.0	0	.0	90200	31400
13	0	.00	85500	48500	0	.00	0	.0	0	.0	79000	30500
14	0	.00	79100	9610	0	.00	0	.0	65300	53500	72000	30900
15	0	.00	58000	4700	0	.00	0	.0	94300	125000	88200	42900
16	0	.00	50100	3650	0	.00	0	.0	111000	273000	95800	48600
17	0	.00	46600	3270	0	.00	0	.0	96000	278000	79200	29700
18	0	.00	42200	798	0	.00	0	.0	82800	105000	75900	29300
19	0	.00	33500	271	0	.00	70200	68400	71300	67400	85600	35600
20	0	.00	22300	60	0	.00	104000	83900	95500	25800	75000	17600
21	13400	1010	0	.0	0	.00	47000	13200	79100	21400	62000	3350
22	19000	51	0	.0	22300	4190	41600	2250	72500	15700	58200	2360
23	13700	18	0	.0	34400	2770	33700	455	62300	6730	54000	1460
24	0	.00	0	.0	17000	138	22700	184	47700	3220	51000	1100
25	0	.00	0	.0	0	.00	19600	106	38600	2610	41100	777
26	0	.00	0	.0	0	.00	3300	18	38000	2570	46100	1190
27	0	.00	0	.0	0	.00	1200	6.5	35100	1800	39000	737
28	0	.00	34600	1540	2190	30	0	.0	37300	1910	31000	318
29	0	.00	69700	188	2610	21	0	.0	---	---	19000	123
30	0	.00	66000	178	1950	5.3	0	.0	---	---	11500	50
31	0	.00	---	---	1660	4.5	0	.0	---	---	27200	206
TOTAL	---	1079.00	---	183511.0	---	7875.25	---	168519.5	---	983640.0	---	725591

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	45000	1460	90300	7310	136000	37500	0	.00	0	.0	0	.00
2	51300	1180	82500	6910	115000	45300	17200	7110	0	.0	0	.00
3	56300	1000	78000	8210	157000	123000	44800	6270	0	.0	0	.00
4	55000	535	74200	6610	99500	26900	21000	283	0	.0	0	.00
5	50300	326	72000	8160	92900	22600	0	.00	0	.0	0	.00
6	47100	153	70300	5690	85000	18400	12000	10	0	.0	0	.00
7	31800	34	65300	2640	81800	17200	46300	10600	0	.0	0	.00
8	0	.0	67000	1540	108000	68900	23500	62	0	.0	0	.00
9	0	.0	75400	1490	61500	19100	0	.00	0	.0	0	.00
10	0	.0	79000	4910	95800	24600	0	.00	0	.0	0	.00
11	0	.0	77000	15200	135000	32800	0	.00	0	.0	0	.00
12	0	.0	79400	12000	108000	26200	0	.00	17000	3410	0	.00
13	0	.0	71500	7720	94000	12200	0	.00	157000	17600	0	.00
14	0	.0	67900	2750	94000	8380	0	.00	112000	6650	0	.00
15	33100	482	71100	1920	98100	8210	0	.00	85000	4360	8450	23
16	47000	546	75100	1620	102000	7160	0	.00	127000	36000	0	.00
17	29000	149	79500	1220	91000	5900	0	.00	180000	78700	0	.00
18	0	.0	83500	1710	92000	5710	0	.00	117000	15800	0	.00
19	0	.0	97700	5540	96000	2590	0	.00	85500	4620	0	.00
20	0	.0	92000	10400	99600	1340	0	.00	70000	1890	0	.00
21	0	.0	86600	16800	62000	167	0	.00	69000	931	0	.00
22	99100	11800	104000	43200	0	.0	0	.00	52500	425	0	.00
23	98500	12000	102000	35000	0	.0	0	.00	35000	94	0	.00
24	86900	8450	109000	28800	0	.0	124000	4280	23000	19	0	.00
25	87000	10800	115000	44300	0	.0	87800	1070	0	.0	0	.00
26	80500	13500	85500	36700	0	.0	69200	467	0	.0	0	.00
27	81300	10300	120000	54100	0	.0	49000	212	0	.0	0	.00
28	84000	9530	122000	54400	0	.0	26100	182	0	.0	0	.00
29	87900	9730	129000	62000	0	.0	65500	173	0	.0	0	.00
30	83800	8820	131000	62300	0	.0	23300	5.0	0	.0	0	.00
31	---	---	134000	59000	---	---	0	.00	0	.0	---	---
TOTAL	---	100795.0	---	610150	---	514157.0	---	30724.00	---	170499.0	---	23.00

TOTAL LOAD FOR YEAR: 3496563.75 TONS.

08354000 RIO SALADO NEAR SAN ACACIA, NM

LOCATION.--Lat 34°17'50", long 106°53'59", in NW¼ sec.24, T.1 N., R.1 W., Socorro County, Hydrologic Unit 13020209, at former bridge site 0.3 mi (0.5 km) upstream from bridge on Interstate Highway 25, 3.1 mi (5.0 km) upstream from mouth, 2.9 mi (4.7 km) north of San Acacia, and 15 mi (24 km) north of Socorro.

DRAINAGE AREA.--1,380 mi² (3,570 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1947 to current year.

REVISED RECORDS.--WSP 1512: 1948-49, 1955. WSP 1632: 1953.

GAGE.--Water-stage recorder. Altitude of gage is 4,765 ft (1,452 m), from topographic map. Prior to Sept. 14, 1966, at site 1.7 mi (2.7 km) downstream at different datum.

REMARKS.--Water-discharge records poor. Diversions for irrigtion of about 100 acres (40 hm²) above station.

AVERAGE DISCHARGE.--32 years, 14.9 ft³/s (0.422 m³/s), 10,800 acre-ft/yr (13.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,200 ft³/s (1,030 m³/s) July 31, 1965, gage height, 5.54 ft (1.689 m), from floodmarks, present site and datum, from rating curve extended above 900 ft³/s (26 m³/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Another flood occurred Aug. 12, 1929 (discharge, 27,400 ft³/s or 776 m³/s, by slope-area method), from reports of State Engineer.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 880 ft³/s (24.9 m³/s) at 2300 hours Sept. 14, gage height, 2.95 ft (0.899 m), no peak above base of 3,000 ft³/s (85.0 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	99	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	5.0	.50	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	29
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.0
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	2.0
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.01	11	1.0
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.32	33	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.0	31	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.2	1.0	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.15	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	1.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.30	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	28	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	2.0	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	1.30	.00	.00	.00	.00	.00	.00	.00	105.00	38.18	76.00	35.00
MEAN	.042	.000	.000	.000	.000	.000	.000	.000	3.50	1.23	2.45	1.17
MAX	1.0	.00	.00	.00	.00	.00	.00	.00	99	28	33	29
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	2.6	.00	.00	.00	.00	.00	.00	.00	208	76	151	69

CAL YR 1978 TOTAL 55.40 MEAN .15 MAX 48 MIN .00 AC-FT 110
WTR YR 1979 TOTAL 255.48 MEAN .70 MAX 99 MIN .00 AC-FT 507

08354000 RIO SALADO NEAR SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1948 to current year.

REMARKS.--Samples are collected when flow is observed on this ephemeral stream.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
OCT 24...	1200	.30	2810	7.9	14.0	770	--	220	54	350	5.5	8.8
JUL 09...	1015	.30	2780	7.7	22.0	680	520	190	50	380	6.3	3.6
AUG 17...	0945	6.4	1840	7.4	13.0	430	250	130	26	240	5.0	7.2

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
OCT 24...	170	730	410	.5	14	1970	--	.67	.03	260	0
JUL 09...	160	670	450	.7	19	--	1860	.65	.12	280	0
AUG 17...	180	470	210	.6	16	--	1210	.37	.11	310	<10

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)
OCT 24...	1200	.30	14.0	19300	16	78	93	100	--	--	--
JUL 09...	1015	.30	22.0	14600	12	83	97	100	--	--	--
AUG 17...	0940	6.4	13.0	31800	550	83	93	96	98	99	100

08354500 SOCORRO MAIN CANAL NORTH AT SAN ACACIA, NM

LOCATION.--Lat 34°15'17", long 106°53'43", in SE¼NW¼ sec.1, T.1 S., R.1 W., Socorro County, Hydrologic Unit 13020203, on right bank at San Acacia, and 0.5 mi (0.8 km) downstream from point of diversion.

PERIOD OF RECORD.--April 1936 to September 1964 (monthly discharge only), October 1964 to current year.

REVISED RECORDS.--WSP 1242: 1951.

GAGE.--Water-stage recorder. Datum of gage is 4,660.16 ft (1,420.417 m) National Geodetic Vertical Datum of 1929. Prior to Mar. 8, 1958, at site 300 ft (90 m) upstream (in old channel) at datum 0.42 ft (0.128 m) lower.

REMARKS.--Records poor. This canal is 1 of 3 channels (stations 08354800, 08354900) carrying flow in valley cross section. For combined monthly flow in acre-ft of this canal, conveyance channel, and floodway, see tabulation below daily table for 08354900. Canal diverts water from right bank of Rio Grande for irrigation of about 8,000 acres (32 km²). Alamillo Acequia and 3 other smaller ditches divert water from canal above station for irrigation of about 400 acres (2 km²). Discharge records collected at the canal heading from October 1964 to September 1965 indicate that 7,770 acre-ft (9.58 hm³) or 9% of the initial canal flow was diverted before reaching the regular gaging station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 271 ft³/s (7.67 m³/s) June 27, 1978; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	141	37	31	37	57	76	241	250	171	256	211	189
2	114	.00	31	36	44	96	232	249	124	259	207	195
3	106	.00	29	37	42	98	226	254	124	254	228	168
4	132	.00	28	34	41	98	228	257	123	253	224	161
5	129	.00	29	34	40	105	221	247	127	254	223	152
6	129	.00	33	34	40	113	234	250	127	254	227	139
7	133	.00	28	35	39	119	229	247	127	255	231	128
8	132	.00	25	35	39	115	232	248	132	254	231	119
9	102	.00	23	35	36	121	231	246	128	231	243	109
10	83	.00	23	36	35	124	236	240	140	218	233	116
11	82	.00	24	36	35	133	234	249	165	227	236	152
12	79	.00	26	36	35	134	233	251	170	235	243	190
13	59	.00	25	35	37	119	236	244	176	231	234	165
14	70	.00	25	34	39	141	239	242	190	237	224	206
15	70	.00	27	33	45	146	239	249	225	237	195	148
16	76	.00	32	34	66	157	242	248	231	231	131	104
17	78	.00	33	35	92	161	242	243	234	216	120	112
18	75	.00	35	35	95	164	244	236	240	230	139	116
19	87	.00	38	37	92	166	248	233	243	229	137	117
20	83	12	38	55	71	162	255	231	249	223	140	118
21	80	30	38	45	58	165	252	217	247	218	153	117
22	98	34	40	39	52	166	253	214	249	231	148	117
23	106	31	40	36	52	182	235	212	251	241	147	110
24	109	31	38	35	54	192	216	208	246	243	135	116
25	107	31	35	35	54	197	247	192	246	238	152	123
26	101	31	34	37	55	194	246	174	253	244	171	119
27	95	33	33	36	59	201	244	166	250	244	177	102
28	96	44	31	35	62	213	251	162	246	246	183	109
29	96	32	30	34	---	225	249	166	249	246	178	165
30	91	32	32	33	---	242	249	178	253	238	181	159
31	87	---	36	53	---	239	---	185	---	225	174	---
TOTAL	3026	378.00	970	1141	1466	4764	7164	6988	5936	7398	5856	4141
MEAN	97.6	12.6	31.3	36.8	52.4	154	239	225	198	239	189	138
MAX	141	44	40	55	95	242	255	257	253	259	243	206
MIN	59	.00	23	33	35	76	216	162	123	216	120	102
AC-FT	6000	750	1920	2260	2910	9450	14210	13860	11770	14670	11620	8210

CAL YR 1978 TOTAL 41526.50 MEAN 114 MAX 271 MIN .00 AC-FT 82370
WTR YR 1979 TOTAL 49228.00 MEAN 135 MAX 259 MIN .00 AC-FT 97640

RIO GRANDE BASIN
08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM
(Surveillance network)

LOCATION.--lat 34°14'54", long 106°54'04", in SW¼ sec.1, T.1 S., R.1 W., Socorro County, Hydrologic Unit 13020203, on right bank 75 ft (23 m) upstream from railway crossing, 0.5 mi (0.8 km) south of San Acacia, and 1.2 mi (1.9 km) downstream from San Acacia diversion dam.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to September 1964 included in composite flow of station "08355000 Rio Grande at San Acacia," October 1960 to September 1964 (monthly discharge published in WSP 1923 with records for station 08355000), October 1964 to current year. Daily records 1958-64 are available in files at district office.

GAGE.--Water-stage recorder. Datum of gage is 4,652.5 ft (1,418.08 m) National Geodetic Vertical Datum of 1929, (levels by Bureau of Reclamation).

REMARKS.--Water-discharge records fair. Conveyance channel, constructed in 1958, is 1 of 3 channels (stations 08354500, 08354900) carrying flow in valley cross section. Original design and plan was for conveyance channel to carry all flows up to about 2,000 ft³/s (57 m³/s). For combined monthly flow in acre-ft of this channel, floodway, and Socorro main canal north see tabulation below daily table for station 08354900.

EXTREMES FOR PERIOD OF RECORD: Maximum daily discharge, 1,950 ft³/s (55.2 m³/s) May 12, 13, 1966; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	78	868	841	638	782	1780	1700	1610	1480	1350	150
2	2.0	214	814	795	577	766	1760	1670	1620	1510	831	120
3	2.2	374	789	794	602	768	1350	1680	1600	1570	654	100
4	2.2	485	774	572	634	776	1550	1670	1630	1580	672	80
5	2.1	870	706	515	705	682	1230	1700	1620	1570	588	75
6	2.1	1040	677	501	771	700	1070	1660	1550	1540	548	35
7	2.1	921	698	529	725	760	862	1590	1220	1560	442	30
8	2.1	930	663	614	649	654	734	1540	1250	1550	364	20
9	2.1	713	592	668	589	822	850	1570	1290	1540	245	20
10	2.1	711	550	759	671	953	1100	1580	1340	1530	263	19
11	1.8	730	520	733	746	1550	1680	1650	1510	1530	426	19
12	1.7	771	490	638	745	1730	1600	1640	1670	1500	187	20
13	1.5	949	463	603	759	1260	1580	1690	1630	1440	280	19
14	1.5	917	520	664	920	1100	1590	1730	1590	1400	416	34
15	1.5	933	858	720	1170	1210	1570	1750	1590	1460	829	848
16	1.5	912	1080	695	1430	1140	1570	1740	1610	1420	936	687
17	1.4	779	1060	668	1640	1100	1610	1710	1670	1410	1640	726
18	1.4	844	1120	671	1680	1100	1640	1710	1680	1460	1500	706
19	1.8	805	999	875	1670	1080	1710	1720	1640	1450	1470	674
20	1.8	793	913	1550	1580	1050	1700	1760	1640	1490	1200	640
21	2.0	793	1150	1400	1520	1050	1700	1790	1630	1560	1220	615
22	1.8	742	1360	1130	1320	1030	1710	1770	1640	1620	1200	597
23	1.7	709	1220	919	1190	985	1710	1780	1660	1590	1040	455
24	1.7	696	999	813	1130	935	1650	1730	1620	1590	777	377
25	1.8	727	801	726	1030	871	1640	1600	1570	1580	596	263
26	1.9	782	720	721	883	856	1630	1620	1540	1590	526	198
27	2.0	933	695	686	870	837	1630	1620	1500	1550	464	171
28	2.0	1320	679	684	802	1420	1660	1540	1500	1540	395	93
29	2.0	964	665	716	---	1590	1660	1540	1510	1540	316	35
30	2.0	975	674	696	---	1710	1660	1520	1510	1520	299	29
31	2.0	---	725	602	---	1770	---	1580	---	1510	190	---
TOTAL	57.7	23410	24842	23498	27646	33037	45186	51550	46640	47180	21864	7857
MEAN	1.86	780	801	758	987	1066	1506	1663	1555	1522	705	262
MAX	2.2	1320	1360	1550	1680	1770	1780	1790	1680	1620	1640	848
MIN	1.4	78	463	501	577	654	734	1520	1220	1400	187	19
AC-FT	114	46430	49270	46610	54840	65530	89630	102200	92510	93580	43370	15580

CAL YR 1978 TOTAL 183321.12 MEAN 502 MAX 1780 MIN .20 AC-FT 363600
WTR YR 1979 TOTAL 352767.70 MEAN 966 MAX 1790 MIN 1.4 AC-FT 699700

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected about 100 ft (30 m) downstream from discharge station.

PERIOD OF RECORD.--Water years 1959 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to current year.
WATER TEMPERATURES: May 1959 to current year.
SUSPENDED SEDIMENT DISCHARGE: January 1959 to current year.

REMARKS.--When there is insufficient flow to sample 08354800 Rio Grande Conveyance Channel at San Acacia, NM or 08354900 Rio Grande Floodway at San Acacia, NM; samples are taken from 08354500 Socorro Main Canal North at San Acacia, NM.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,840 micromhos Oct. 8, 1964; minimum daily, 136 micromhos June 19, 1967.
WATER TEMPERATURES: Maximum, 36.0°C July 13, 1970, Aug. 13, 1978; minimum, 0.0°C on several days during winter periods
SEDIMENT CONCENTRATIONS: Maximum daily, 141,000 mg/L Aug. 10, 1959; minimum daily, no flow on many days during most
years.
SEDIMENT LOADS: Maximum daily, 528,000 tons (479,000 tonnes) Aug. 28, 1972; minimum daily, 0 tons (0 tonnes) on
many days during most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,440 micromhos Aug. 11; minimum daily, 250 micromhos July 14.
WATER TEMPERATURES: Maximum, 29.0°C Aug. 10; minimum, 0.0°C Dec. 9.
SEDIMENT CONCENTRATIONS: Maximum daily, 57,400 mg/L Aug. 17; minimum daily, 59 mg/L Oct. 24.
SEDIMENT LOADS: Maximum daily, 254,000 tons (230,000 tonnes) Aug. 17; minimum daily, 0.27 ton (0.24 tonne) Oct. 24.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)
OCT									
16...	1246	1.3	1100	8.1	24.5	16.0	58	8.6	79
NOV									
07...	1307	898	820	8.0	18.0	13.0	39	8.8	140
DEC									
07...	1627	712	690	8.1	-2.5	3.0	220	11.0	40
JAN									
04...	1717	548	705	8.0	9.5	6.0	120	11.0	28
FEB									
27...	1755	828	600	8.5	9.0	9.0	1200	9.5	78
MAR									
29...	1829	1570	460	8.1	10.0	10.5	480	9.2	46
APR									
19...	1741	1720	505	8.0	22.5	17.0	420	8.0	56
MAY									
25...	1125	1600	375	7.8	20.5	16.0	290	8.1	63
JUN									
15...	1615	1640	300	7.8	26.5	20.0	390	7.7	42
JUL									
11...	1511	1520	283	7.8	37.0	24.5	110	6.9	51
AUG									
23...	1043	1050	479	8.0	27.5	22.0	64	7.1	52
SEP									
26...	1111	211	669	8.4	22.0	18.5	70	8.3	14

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)
OCT 16...	--	73	.20	.23	.02	.48	.70	.320	.14
NOV 07...	--	7190	1.0	.90	.06	8.0	9.1	3.60	.21
DEC 07...	--	501	.52	.54	.08	.81	1.4	.760	.50
JAN 04...	--	340	.28	.19	.16	.94	1.4	.630	.25
FEB 27...	.7	3880	1.1	1.2	.04	1.2	2.3	.450	.36
MAR 29...	--	1220	.54	.50	.03	.64	1.2	1.00	.25
APR 19...	--	2280	.40	.33	.05	1.2	1.6	.640	.18
MAY 25...	--	1990	.27	.21	.05	2.2	2.5	1.00	.07
JUN 15...	--	436	.24	.18	.13	1.4	1.7	1.00	.05
JUL 11...	--	700	.23	.19	.05	.61	.89	.360	.11
AUG 23...	--	1720	.66	.64	.01	1.4	2.1	1.20	.27
SEP 26...	--	455	.34	.31	.03	.59	.96	.450	.39

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
DEC 07...	1627	8	--	1	--	20	--
MAR 29...	1829	7	--	0	--	20	--
JUN 15...	1615	6	--	0	--	20	--
AUG 23...	1043	4	5	1	4	30	10

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)
DEC 07...	33	--	10000	15	--	2.4	--
MAR 29...	30	--	--	27	--	.0	--
JUN 15...	31	--	--	34	--	1.5	--
AUG 23...	4	1	--	23	5	1.0	.1

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)
SEP										
26...	1111	.0	0	.00	.0	.00	.0	.00	.0	.00

DATE	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)
SEP									
26...	.0	.00	.0	.00	.00	.0	.00	.0	.00

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	PERTHANE TOTAL (UG/L) (39034)'	MIREX, TOTAL (UG/L) (39755)
SEP									
26...	.0	.00	.0	.00	.0	0	0	.00	.00

Results of Analysis of Water and Bed Materials for Selected Chlorinated Hydrocarbon Isomers

Date	Time	o-p'-DDE	o-p'-DDD	o-p'DDT	cis-chlordane	trans-chlordane	α-BHC	Hexachlorobenzene	cis-nonachlor
Sept.									
26	1111 (w)	0	0	0	0	0	0	0	0
	(s)	0	0	0	0	0	0	0	0

NOTE: Reporting units are ug/L for water samples (w) and ug/kg for bed material sediment samples (s). The lowest detectable limit is 0.01 ug/L for water samples and 0.1 ug/kg for sediment samples.

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
16...	1246	1000	5900
NOV			
07...	1307	2700	7000
DEC			
07...	1627	570	2000
JAN			
04...	1717	5500	480
FEB			
27...	1755	350	2500
MAR			
29...	1829	400	640
APR			
19...	1741	1100	780
MAY			
25...	1125	410	850
JUN			
15...	1615	250	660
JUL			
11...	1511	220	300
AUG			
23...	1043	770	1200
SEP			
26...	1111	240	170

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
NOV							
07...	1307	898	13.0	12900	31300	34	41
13...	1715	1140	13.0	44400	137000	47	64
DEC							
23...	1650	1170	5.0	4930	15600	27	33
JAN							
04...	1717	548	6.0	3540	5240	5	6
20...	1735	1620	8.0	13400	58600	48	62
FEB							
19...	1550	1650	9.0	34700	155000	53	58
22...	1700	1400	10.0	31800	120000	41	49
27...	1750	855	9.0	8990	20800	19	20
MAR							
10...	1650	1110	12.0	60600	182000	51	60
12...	1650	1850	13.0	15500	77400	35	41
APR							
19...	1741	1720	17.0	4920	22800	9	10
MAY							
23...	1715	1780	22.0	6120	29400	22	25
25...	1125	1600	16.0	17100	73900	14	17
JUN							
15...	1615	1640	20.0	4370	19400	14	16
AUG							
15...	1730	1360	20.0	62900	231000	39	51
31...	1645	186	27.0	2770	1390	22	25
SEP							
14...	1835	24	24.0	42700	2770	52	57

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM (70347)
NOV							
07...	51	57	72	94	99	99	100
13...	78	85	92	99	100	--	--
DEC							
23...	43	50	69	95	100	--	--
JAN							
04...	9	20	47	91	98	99	100
20...	74	84	89	96	100	--	--
FEB							
19...	72	95	99	100	--	--	--
22...	61	85	94	98	100	--	--
27...	25	53	69	90	100	--	--
MAR							
10...	75	96	99	100	--	--	--
12...	51	84	96	99	100	--	--
APR							
19...	14	39	73	93	97	99	100
MAY							
23...	32	51	81	97	100	--	--
25...	22	34	64	96	100	--	--
JUN							
15...	20	39	65	92	100	--	--
AUG							
15...	71	92	98	100	--	--	--
31...	27	32	46	95	100	--	--
SEP							
14...	73	93	99	100	--	--	--

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1080	783	570	643	665	702	460	361	337	295	332	667
2	1090	674	549	631	681	645	456	352	370	297	---	743
3	1100	608	568	624	653	705	452	347	411	289	430	752
4	1070	612	550	697	670	630	480	374	355	299	440	755
5	1090	668	652	689	668	646	505	381	386	300	453	759
6	1110	649	679	704	651	614	533	381	377	302	450	772
7	1120	658	548	682	635	569	550	378	366	298	450	801
8	1100	620	659	720	670	565	555	367	348	306	560	811
9	1090	572	662	643	668	890	558	354	342	273	520	873
10	1090	560	715	640	624	1230	514	356	379	275	530	820
11	1170	571	681	658	630	697	490	361	409	263	1440	638
12	1120	695	734	665	647	562	518	356	357	263	700	643
13	1120	931	704	637	626	576	502	344	333	257	690	688
14	1140	596	755	644	625	623	491	336	334	250	660	695
15	1140	619	581	663	1090	650	483	340	330	272	880	737
16	1150	546	570	660	1270	642	490	342	331	260	510	584
17	1160	573	588	655	1080	554	502	346	321	255	840	532
18	1160	539	541	681	822	577	454	356	328	256	660	515
19	861	549	551	614	910	536	441	331	314	262	560	535
20	860	543	597	685	833	456	442	330	311	280	580	509
21	838	544	558	793	878	526	445	324	306	270	520	520
22	876	553	605	767	762	443	416	369	317	258	490	542
23	825	573	612	748	664	493	412	360	296	270	500	587
24	847	530	587	756	640	548	414	357	300	273	493	583
25	866	554	605	695	635	532	392	373	290	280	510	630
26	846	694	662	674	618	484	412	373	294	271	520	713
27	851	721	654	638	547	496	384	353	295	263	520	654
28	841	524	653	675	580	434	368	353	297	268	510	668
29	850	546	661	674	---	447	379	349	295	295	540	755
30	829	532	644	655	---	425	363	343	297	301	570	738
31	838	---	614	703	---	470	---	343	---	328	605	---
MEAN	1000	611	623	678	730	592	462	355	334	278	582	674

WTR YR 1979 MEAN 576 MAX 1440 MIN 250

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	15.0	10.0	3.0	6.0	10.0	13.0	17.0	19.0	23.0	28.0	26.0
2	25.0	16.0	7.5	1.0	7.0	10.0	12.0	18.0	17.0	23.0	---	26.0
3	25.0	15.0	6.0	3.0	7.0	10.0	12.0	16.0	21.0	22.0	28.0	25.5
4	25.0	14.0	5.0	6.0	7.5	11.0	14.0	18.0	21.0	19.0	27.0	26.0
5	24.0	15.0	8.0	4.0	7.0	12.0	17.0	18.0	20.0	25.0	27.0	28.0
6	21.0	15.0	6.0	7.0	6.0	13.0	17.0	19.0	21.0	25.0	27.0	28.0
7	23.0	15.0	3.0	8.0	7.5	15.0	18.0	19.0	22.0	20.0	27.0	27.0
8	24.0	15.0	1.5	5.0	9.0	16.0	19.0	17.0	20.0	25.0	26.0	26.0
9	23.0	15.0	.0	6.5	10.0	14.0	16.0	15.0	20.0	26.0	28.0	26.0
10	22.0	12.5	2.0	7.0	10.0	12.0	11.0	14.0	20.0	25.0	29.0	28.0
11	22.0	13.5	3.0	7.0	10.0	6.0	11.5	17.0	21.5	26.5	20.0	27.0
12	22.0	13.0	5.0	8.0	11.0	13.0	11.0	18.5	23.0	26.0	26.0	27.0
13	20.0	13.0	4.0	5.0	13.0	12.0	15.0	20.0	23.0	26.0	25.0	26.0
14	19.5	12.0	6.0	6.0	12.0	12.0	18.0	21.0	22.0	26.0	24.0	24.0
15	22.0	10.0	6.0	5.0	10.0	15.0	16.0	17.0	22.0	22.0	20.0	12.0
16	20.0	11.0	6.0	8.0	6.0	15.0	14.0	17.0	21.0	26.0	23.0	17.0
17	20.0	10.0	5.0	6.0	8.0	12.0	19.0	20.0	23.0	25.0	22.0	20.0
18	21.0	10.0	6.0	8.5	9.0	13.0	19.0	20.0	21.0	24.0	23.0	20.0
19	20.0	11.0	10.0	8.0	9.0	11.0	20.0	21.0	21.0	25.0	24.0	24.0
20	20.0	11.0	6.0	8.0	10.0	13.0	20.0	20.0	23.0	23.0	25.0	20.0
21	16.5	10.0	6.0	6.0	9.0	11.0	17.0	19.0	24.0	24.0	26.0	24.0
22	19.0	10.0	6.0	5.0	10.0	11.0	17.0	22.0	22.0	27.0	26.0	17.0
23	12.0	11.0	5.0	5.0	9.0	12.0	17.0	22.0	23.0	27.0	27.0	24.0
24	15.0	10.0	5.0	3.0	10.0	12.0	20.0	21.0	24.0	28.0	26.0	25.0
25	15.0	11.0	7.5	6.0	10.0	13.0	18.0	21.0	25.0	27.0	26.0	25.0
26	18.0	9.0	8.0	5.0	10.0	17.0	17.0	19.5	25.0	28.0	26.0	23.0
27	18.0	9.5	7.0	6.0	10.0	15.0	19.0	20.0	25.0	27.0	27.0	23.0
28	19.0	8.0	8.0	5.0	12.0	12.0	19.0	19.0	26.0	27.0	28.0	24.0
29	16.0	8.0	8.0	5.0	---	12.0	19.0	21.0	24.0	25.0	28.0	23.0
30	18.0	9.5	9.0	4.0	---	14.0	19.0	21.0	25.0	26.0	26.0	23.0
31	17.0	---	8.0	4.0	---	13.0	---	20.0	---	26.0	27.0	---
MEAN	20.0	12.0	6.0	5.5	9.0	12.5	16.5	19.0	22.0	25.0	25.5	24.0

WTR YR 1979 MEAN 16.5 MAX 29.0 MIN .0

08354800 RIO GRANDE CONVEYANCE CHANNEL AT SAN ACACIA, NM -- Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
1	183	.94	3490	1160	5030	11800	4170	9470	3080	5310	9000	19000
2	176	.95	7000	4040	4200	9230	4380	9400	2450	3820	6650	13800
3	165	.98	8050	8130	3690	7860	5460	11700	2220	3610	8500	17600
4	184	1.1	8580	11200	4020	8400	3720	5750	2480	4250	7400	15500
5	160	.91	15500	39700	3170	6040	3110	4320	2780	5290	5900	10900
6	149	.84	16100	45200	3240	5920	3200	4330	3300	6870	4990	9430
7	146	.83	12900	32100	4390	8270	3050	4360	2710	5300	3650	7490
8	126	.71	8900	22300	5700	10200	3230	5350	3120	5470	3000	5300
9	313	1.8	5900	11400	4900	7830	3430	6190	2470	3930	19700	46900
10	168	.95	6750	13000	4000	5940	3230	6620	1870	3390	34200	94800
11	104	.51	3200	6310	4400	6180	3160	6250	2840	5720	25500	105000
12	86	.39	5450	11300	4550	6020	2930	5050	2640	5310	16700	78000
13	75	.30	38000	105000	4330	5410	2740	4460	2070	4240	12500	42500
14	76	.31	15500	38400	3750	5260	2910	5220	2620	6810	13000	38400
15	80	.32	4110	10400	4600	10700	3330	6470	22400	76900	19000	62100
16	82	.33	5000	12300	4370	12700	2870	5390	50200	209000	21000	64600
17	97	.37	5840	12300	4180	12000	3100	5590	48600	215000	13000	38600
18	76	.29	6550	14900	3650	11000	2650	4800	34000	154000	11500	34200
19	132	.64	5930	12900	2800	7550	3110	7990	34100	154000	13500	39400
20	140	.68	4720	10100	2680	6610	12600	53400	36000	154000	10000	28400
21	130	.70	4610	9870	2820	8760	7430	28100	37600	154000	4110	11700
22	110	.53	3770	7550	3500	12900	5740	17500	33100	118000	4050	11300
23	61	.28	4910	9400	4800	15800	4550	11300	22100	71000	4200	11200
24	59	.27	3760	7070	3430	9250	4740	10400	14500	44200	4050	10200
25	111	.54	4470	8770	2430	5260	3870	7590	13000	36200	3710	8850
26	97	.50	4900	10300	2420	4700	4000	7790	11500	27400	3490	8080
27	75	.41	5940	15000	2750	5160	3440	6370	8700	20400	2270	5130
28	89	.48	8850	31500	2900	5320	3710	6850	9200	19900	4480	19200
29	86	.46	5540	14400	3000	5390	3880	7500	---	---	3730	16000
30	93	.50	5880	15500	2510	4570	3750	7050	---	---	3550	16400
31	116	.63	---	---	2650	5190	3140	5100	---	---	2950	14100
TOTAL	---	19.45	---	551500	---	247220	---	287660	---	1523320	---	904080

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
1	3100	14900	5100	23400	8810	38300	4700	18800	4780	17400	275	111
2	3780	18000	5980	27000	8180	35300	4670	19000	3170	7110	1410	457
3	3730	13600	5910	26800	9320	40300	5180	22000	2200	3880	830	224
4	3620	15100	5420	24400	7380	32500	4950	21100	2100	3810	650	140
5	3050	10100	4900	22500	7460	32600	4220	17900	1810	2870	570	115
6	2650	7660	5570	25000	8640	36200	3850	16000	1600	2370	1100	104
7	2220	5170	6180	26500	6950	22900	4650	19600	1070	1280	475	38
8	1800	3570	5220	21700	7710	26000	4720	19800	10500	10700	80	4.3
9	1810	4150	4550	19300	7290	25400	5550	23100	2200	1460	3200	173
10	3870	14000	4520	19300	7130	25800	4630	19100	4100	2910	2590	133
11	5220	23700	5850	26100	8110	33500	4760	19700	24300	32700	450	23
12	5830	25200	6000	26600	6810	30700	5800	23500	17000	8580	100	5.4
13	5470	23300	4140	18900	5590	24600	5850	22700	11800	8920	240	12
14	5610	24100	4480	20900	5120	22000	5870	22200	14600	16400	25400	3540
15	6380	27000	6490	30700	4740	20300	4360	17200	37600	96300	50400	118000
16	5890	25000	5750	27000	4320	18800	3190	12200	19300	65400	5950	11000
17	4100	17800	4750	21900	3730	16800	2990	11400	57400	254000	5770	11300
18	4710	20900	4040	18700	3700	16800	3450	13600	18000	72900	3520	6730
19	5060	23400	3260	15100	2740	12100	2890	11300	8280	32900	6260	11400
20	4480	20600	5300	25200	3150	13900	3140	12600	6780	22000	5010	8660
21	5250	24100	5710	27600	3890	17100	2840	12000	5880	19400	4900	8140
22	4720	21800	5450	26000	4160	18400	2080	9100	5770	18700	4950	7980
23	4690	21700	6070	29200	5910	26500	2780	11900	5660	15900	5650	6940
24	5000	22300	9010	42100	5740	25100	4300	18500	4380	9190	4760	4850
25	5760	25500	13900	60000	5200	22000	4130	17600	3440	5540	4380	3110
26	6490	28600	6780	29700	4960	20600	4000	17200	2880	4090	5300	2830
27	4950	21800	6370	27900	4650	18800	3310	13900	3300	4130	3920	1810
28	5490	24600	6410	26700	5360	21700	2440	10100	3020	3220	2050	515
29	7150	32000	7370	30600	5200	21200	4540	18900	2360	2010	3140	297
30	5840	26200	7470	30700	5450	22200	5440	22300	2090	1690	7030	550
31	---	---	7750	33100	---	---	5370	21900	1900	975	---	---
TOTAL	---	585850	---	830600	---	738900	---	536200	---	748735	---	209191.7

TOTAL LOAD FOR YEAR: 7163276.15 TONS.

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM
(Surveillance network)

LOCATION.--Lat 34°15'23", long 106°53'18", Socorro County, Hydrologic Unit 13020203, in Sevilleta Grant, on right bank 0.2 mi (0.3 km) below San Acacia diversion dam, 0.3 mi (0.5 km) east of San Acacia, 2 mi (3 km) downstream from Rio Salado, and at mile 1,472.6 (2,369.4 km).

DRAINAGE AREA.--26,770 mi² (69,330 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1936 to Septmeber 1958 (prior to construction of conveyance channel), October 1958 to September 1964 (flow in conveyance channel included), October 1964 to current year. Prior to October 1964 published as "08355000 Rio Grande at San Acacia" and records are not equivalent.

REVISED RECORDS.--WSP 1242: 1951. WSP 1732: 1958(M). WRD 1969: 1967.

GAGE.--Water-stage recorder. Datum of gage is 4,654.50 ft (1,418.692 m) National Geodetic Vertical Datum of 1929. Aug. 19, 1965 to Aug. 15, 1967 at same site at datum 1.89 ft (0.576 m) higher. Prior to Mar. 19, 1953, at several sites 0.1 mi (0.2 km) upstream at different datums. Mar. 19, 1953 to Aug. 19, 1965, at site 0.4 mi (0.6 km) downstream at datum 3.60 ft (1.097 m) higher. Floodway is bypassed by Socorro main canal north and since Oct. 1958, by conveyance channel.

REMARKS.--Water-discharge records poor. Floodway is 1 of 3 channels (stations 08354500, 08354800) carrying flow in valley cross section. For combined monthly flow in acre-ft of floodway, conveyance channel, and Socorro main canal north see tabulation below. Normal plan is for floodway to carry flow when combined capacities of conveyance channel (about 2,000 ft³/s or 57 m³/s) and Socorro main canal north (about 200 ft³/s or 6 m³/s) is exceeded, during periods of silt sluicing, and when river silt load is excessive. Diversions above station for irrigation of about 760,000 acres (3,100 km²); this includes Socorro main canal north which bypasses station and irrigates about 8,000 acres (32 km²).

AVERAGE DISCHARGE.--22 years (water years 1937-58), 1,192 ft³/s (33.76 m³/s), 863,000 acre-ft/yr (1,060 hm³/yr), prior to construction of conveyance channel; does not include Socorro main canal north.

15 years (water years 1959-73), 911 ft³/s (25.80 m³/s), 660,000 acre-ft/yr (814 hm³/yr), combined flow of floodway, conveyance channel and Socorro main canal north prior to closure of Cochiti Dam.

6 years (water years 1974-79), 1,039 ft³/s (29.42 m³/s), 752,800 acre-ft/yr (928 hm³/yr), combined flow of floodway, conveyance channel, and Socorro main canal north since closure of Cochiti Dam.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 27,400 ft³/s (776 m³/s) Aug. 5, 1936, gage height, 10.75 ft (3.277 m), site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,780 ft³/s (192 m³/s) June 1, gage height, 8.30 ft (2.530 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	52	23	.17	9.2	.00	8.0	348	4020	5520	3330	412	8.2
2	54	.04	.09	6.7	.00	3.7	223	3760	5400	3480	143	7.4
3	23	.00	.13	.68	.00	2.2	8.7	3960	3980	3300	142	6.9
4	14	.00	.12	.16	.00	3.3	185	4210	3480	3400	127	6.7
5	4.1	29	.85	.00	.00	.89	36	3990	3980	3540	91	6.5
6	3.2	.64	.27	.00	.00	3.3	50	4040	4180	3500	79	6.4
7	3.8	.42	.27	.00	.00	.86	41	4000	4220	3720	73	6.7
8	3.2	.17	.12	.05	.00	1.5	70	3720	4380	3500	68	6.9
9	3.2	.00	.10	.17	.00	50	31	3860	5220	3370	50	6.8
10	2.9	.00	.00	1.2	.00	40	251	4370	4470	3020	46	6.8
11	2.9	.00	.00	.82	.00	365	811	4100	5600	2860	284	7.3
12	2.6	.00	.00	.82	.06	201	1090	3620	4760	2950	84	7.1
13	2.6	.00	.00	.67	.13	2.3	759	3600	4550	2850	88	6.8
14	2.2	.00	.00	.65	.33	22	921	3670	4510	2850	49	12
15	2.2	.00	.06	.80	6.5	6.4	1050	3490	4090	3030	282	243
16	1.9	.00	.68	.80	132	24	925	3470	3970	3170	76	23
17	1.9	.00	.10	.80	281	39	283	3370	3900	3450	1040	22
18	1.6	.00	.16	.70	122	243	133	3170	3970	3780	454	22
19	2.9	.00	.17	1.2	111	1110	1670	2780	3900	3290	300	22
20	3.5	.00	.00	19	23	993	1860	2820	3500	3450	50	21
21	3.5	.00	.07	3.2	15	184	1940	3600	3430	3320	10	23
22	123	.00	.23	.36	.16	7.8	1990	3920	3310	3290	1.4	22
23	44	.00	.15	.20	.08	7.6	2170	3810	3380	3130	2.1	22
24	76	.00	.08	.16	.15	7.6	2570	3850	3430	2960	2.9	22
25	130	.07	.00	.11	.11	9.2	2750	4340	3590	2900	4.7	21
26	149	.02	.00	.18	.10	125	3350	4800	3700	2800	5.2	9.7
27	119	.07	.00	.02	.21	57	3070	5060	3540	2650	5.7	3.3
28	63	4.1	.00	.01	.14	376	3820	5120	3530	2400	6.9	3.6
29	40	.24	.00	.01	---	105	4070	5260	3360	2200	11	4.5
30	29	.10	.01	.06	---	257	4320	5160	3340	1950	8.1	4.7
31	35	---	.08	.01	---	326	---	5080	---	1350	8.0	---
TOTAL	999.2	57.87	3.91	48.74	691.97	4581.65	40795.7	124020	122190	94790	4004.0	591.3
MEAN	32.2	1.93	.13	1.57	24.7	148	1360	4001	4073	3058	129	19.7
MAX	149	29	.85	19	281	1110	4320	5260	5600	3780	1040	243
MIN	1.6	.00	.00	.00	.00	.86	8.7	2780	3310	1350	1.4	3.3
AC-FT	1980	115	7.8	97	1370	9090	80920	246000	242400	188000	7940	1170
(†)	8090	47300	51200	48970	59120	84070	184800	362100	346700	296200	62930	24960

CAL YR 1978 TOTAL 28652.83 MEAN 78.5 MAX 2020 MIN .00 AC-FT 56830
WTR YR 1979 TOTAL 392774.34 MEAN 1076 MAX 5600 MIN .00 AC-FT 779100

† COMBINED FLOW, IN ACRE-FT IN FT³/S, OF FLOODWAY, CONVEYANCE CHANNEL, AND SOCORRO MAIN CANAL NORTH.

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937-56, 1959 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July to December 1937, March 1939 to September 1956, October 1964 to current year.
WATER TEMPERATURES: October 1947 to August 1956, January 1959 to current year.
SUSPENDED SEDIMENT DISCHARGE: July 1946 to June 1956, January 1959 to current year.

REMARKS.--Additional sediment total discharge determinations were made bi-weekly when needed. When there is insufficient flow to sample 08354800 Rio Grande Conveyance Channel at San Acacia, NM or 08354900 Rio Grande Floodway at San Acacia, NM; samples are taken from 08354500 Socorro Main Canal North at San Acacia, NM.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 3,700 micromhos July 14, 1940; minimum daily, 236 micromhos May 17, 1942.
WATER TEMPERATURES: Maximum, 34.5°C July 13, 1971; minimum (1947-56, 1959-62, 1964-79), 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 223,000 mg/L Aug. 11 1946; minimum daily, no flow on many days of most years.
SEDIMENT LOADS: Maximum daily, 1,760,000 tons (1,600,000 tonnes) Aug. 12, 1955, minimum daily, 0 ton (0 tonne) on many days of most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,240 micromhos Aug. 11; minimum daily, 249 micromhos July 15.
WATER TEMPERATURES: Maximum, 29.0°C Aug. 10; minimum, 0.0°C Dec. 9.
SEDIMENT CONCENTRATIONS: Maximum daily, 55,000 mg/L Oct. 22; minimum daily, no flow on many days in November to February.
SEDIMENT LOADS: Maximum daily, 117,000 tons (106,000 tonnes) June 11; minimum daily, 0 ton (0 tonne) on many days in November to February.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
23...	1640	58	12.0	3810	597	72	85
NOV							
26...	1315	.02	9.0	3890	.20	10	13
JAN							
19...	1440	1.2	8.0	8710	28	74	83
FEB							
17...	1435	.10	8.0	61600	17	56	65
MAR							
10...	1635	146	12.0	54300	21400	54	63
19...	1630	1860	11.0	11100	55700	28	33
APR							
26...	1800	4220	17.0	3290	37500	41	48
MAY							
25...	1340	4330	19.0	4510	52700	30	35
31...	1940	6990	20.0	6440	122000	36	42
JUN							
04...	1830	5040	21.0	4710	64100	38	45
15...	1815	3980	22.0	3410	36600	19	23
JUL							
03...	1415	3420	22.0	1040	9600	25	30
29...	1935	3960	25.0	1860	19900	37	49
AUG							
15...	1715	1350	20.0	65200	238000	42	54
31...	1630	7.0	27.0	434	8.2	81	90
SEP							
14...	1820	17	24.0	5280	242	71	86

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)
OCT						
23...	97	100	--	--	--	--
NOV						
26...	16	25	45	87	99	100
JAN						
19...	99	100	--	--	--	--
FEB						
17...	80	99	100	--	--	--
MAR						
10...	82	99	100	--	--	--
19...	45	86	98	100	--	--
APR						
26...	60	83	96	100	--	--
MAY						
25...	42	61	83	99	100	--
31...	50	77	95	100	--	--
JUN						
04...	55	83	96	100	--	--
15...	30	48	72	94	100	--
JUL						
03...	39	75	96	100	--	--
29...	64	88	97	100	--	--
AUG						
15...	78	97	99	100	--	--
31...	97	100	--	--	--	--
SEP						
14...	97	100	--	--	--	--

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)
JUL								
03...	1415	3420	1040	9600	44	89	99	100

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT DISCH. TOTAL, SUSP.+ BEDLOAD (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC-ITY, MEAN (FPS) (00055)
JUL									
03...	1415	3420	22.0	1040	9600	9950	200	3.5	4.9

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	774	740	766	586	755	730	463	340	338	292	340	678
2	760	738	776	625	763	649	444	340	341	295	---	741
3	865	697	784	628	752	707	525	337	383	288	412	733
4	883	674	810	745	755	670	510	369	330	298	500	712
5	888	694	899	720	737	682	511	367	364	295	500	744
6	915	680	845	721	756	626	546	366	347	300	490	738
7	850	694	824	730	770	597	545	356	342	294	490	760
8	837	641	788	660	746	627	570	348	344	304	630	763
9	856	724	760	725	740	951	550	340	331	274	540	807
10	926	697	777	644	733	1200	533	347	376	272	580	760
11	943	711	826	660	750	689	495	353	392	260	1240	656
12	903	541	822	676	752	565	520	344	350	262	720	642
13	984	716	836	700	786	600	515	329	328	252	730	645
14	984	695	823	692	777	612	496	335	325	250	680	769
15	982	719	789	684	738	652	478	321	331	249	880	814
16	970	702	680	701	1100	681	490	337	328	255	580	619
17	980	721	643	717	1060	569	487	344	319	257	860	700
18	950	691	671	685	860	559	462	327	327	268	680	720
19	727	719	748	767	872	515	448	327	319	260	600	745
20	682	695	745	736	892	479	420	318	302	272	610	682
21	699	718	706	760	842	504	429	318	301	263	560	578
22	1040	702	735	768	822	509	429	350	308	258	500	565
23	679	725	777	767	778	523	404	345	291	268	540	626
24	595	716	784	747	769	563	404	344	297	267	510	644
25	690	735	791	742	760	552	383	356	290	282	530	717
26	553	548	787	735	765	530	392	356	292	272	540	702
27	596	538	794	724	807	531	378	342	295	263	550	705
28	624	624	792	724	790	429	357	333	290	278	550	661
29	719	742	777	730	---	463	370	333	291	290	580	722
30	711	744	796	724	---	426	345	342	295	295	580	740
31	753	---	767	746	---	448	---	335	---	340	590	---
MEAN	817	689	778	709	801	608	463	342	326	277	603	703

WTR YR 1979 MEAN 592 MAX 1240 MIN 249

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	25.0	15.0	10.0	3.0	6.0	10.0	13.0	17.0	19.0	23.0	28.0	26.0
2	25.0	16.0	7.5	1.0	7.0	10.0	12.0	18.0	17.0	23.0	---	26.0
3	25.0	15.0	6.0	3.0	7.0	10.0	12.0	16.0	21.0	22.0	28.0	25.5
4	25.0	14.0	5.0	6.0	7.5	11.0	14.0	18.0	21.0	19.0	27.0	26.0
5	24.0	15.0	8.0	4.0	5.0	12.0	17.0	18.0	20.0	25.0	27.0	28.0
6	21.0	15.0	6.0	7.0	6.0	13.0	17.0	19.0	21.0	25.0	27.0	28.0
7	23.0	15.0	3.0	8.0	7.5	15.0	18.0	19.0	22.0	20.0	27.0	27.0
8	24.0	15.0	1.5	5.0	9.0	16.0	19.0	17.0	20.0	25.0	26.0	26.0
9	23.0	15.0	.0	6.5	10.0	14.0	16.0	15.0	20.0	26.0	28.0	26.0
10	22.0	12.5	2.0	7.0	10.0	12.0	11.0	14.0	20.0	25.0	29.0	28.0
11	22.0	13.5	3.0	7.0	10.0	6.0	11.5	17.0	21.5	26.5	20.0	27.0
12	22.0	13.0	5.0	8.0	11.0	13.0	11.0	18.5	23.0	26.0	26.0	27.0
13	20.0	13.0	4.0	5.0	13.0	12.0	15.0	20.0	23.0	26.0	25.0	26.0
14	19.5	12.0	6.0	6.0	12.0	12.0	18.0	21.0	22.0	26.0	24.0	24.0
15	22.0	10.0	6.0	5.0	10.0	15.0	16.0	17.0	22.0	22.0	20.0	12.0
16	20.0	11.0	6.0	8.0	6.0	15.0	14.0	17.0	21.0	26.0	23.0	17.0
17	20.0	10.0	5.0	6.0	8.0	12.0	19.0	20.0	23.0	25.0	22.0	20.0
18	21.0	10.0	6.0	8.5	9.0	13.0	19.0	20.0	21.0	24.0	23.0	20.0
19	20.0	11.0	10.0	8.0	9.0	11.0	20.0	21.0	21.0	25.0	24.0	24.0
20	20.0	11.0	6.0	8.0	10.0	13.0	20.0	20.0	23.0	23.0	25.0	25.0
21	16.5	10.0	6.0	6.0	9.0	11.0	18.0	19.0	24.0	24.0	26.0	24.0
22	19.0	10.0	6.0	5.0	10.0	11.0	18.0	22.0	22.0	27.0	26.0	17.0
23	12.0	11.0	5.0	5.0	9.0	12.0	17.0	22.0	23.0	27.0	27.0	24.0
24	15.0	10.0	5.0	3.0	10.0	12.0	18.0	21.0	24.0	28.0	26.0	25.0
25	15.0	11.0	7.5	6.0	10.0	13.0	18.0	21.0	25.0	27.0	26.0	25.0
26	18.0	9.0	8.0	5.0	10.0	17.0	17.0	19.5	25.0	28.0	26.0	23.0
27	18.0	9.5	7.0	6.0	10.0	15.0	19.0	20.0	25.0	27.0	27.0	23.0
28	16.0	8.0	8.0	5.0	12.0	12.0	19.0	19.0	26.0	27.0	28.0	24.0
29	16.0	8.0	8.0	5.0	---	12.0	19.0	21.0	24.0	25.0	28.0	23.0
30	18.0	9.5	9.0	4.0	---	14.0	19.0	21.0	25.0	26.0	26.0	23.0
31	17.0	---	8.0	4.0	---	13.0	---	20.0	---	26.0	27.0	---
MEAN	20.0	12.0	6.0	5.5	9.0	12.5	16.5	19.0	22.0	25.0	25.5	24.0

WTR YR 1979 MEAN 16.5 MAX 29.0 MIN .0

08354900 RIO GRANDE FLOODWAY AT SAN ACACIA, NM -- Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	180	25	699	43	228	.10	182	4.5	0	.00	1750	65
2	180	26	415	.04	103	.03	208	3.8	0	.00	2470	25
3	163	10	0	.00	99	.03	98	.18	0	.00	3450	20
4	180	6.8	0	.00	135	.04	57	.02	0	.00	3520	31
5	221	2.4	2300	391	637	1.5	0	.00	0	.00	2800	6.7
6	325	2.8	1620	2.8	890	.65	0	.00	0	.00	2220	20
7	135	1.4	1150	1.3	362	.26	0	.00	0	.00	1110	2.6
8	126	1.1	410	.19	159	.05	39	.01	0	.00	1630	6.6
9	117	1.0	0	.00	165	.04	34	.02	0	.00	22700	3830
10	158	1.2	0	.00	0	.00	145	.47	0	.00	28500	3720
11	115	.90	0	.00	0	.00	113	.25	0	.00	17300	15800
12	64	.45	0	.00	0	.00	65	.14	47	.01	11300	7380
13	76	.53	0	.00	0	.00	44	.08	38	.01	5200	32
14	82	.49	0	.00	0	.00	37	.06	97	.09	5540	336
15	72	.43	0	.00	129	.02	39	.08	7350	341	7500	130
16	67	.34	0	.00	223	.41	42	.09	25200	15100	7930	683
17	74	.38	0	.00	286	.08	77	.17	39000	35100	7980	830
18	80	.35	0	.00	271	.12	53	.10	26500	9150	8420	5990
19	101	.79	0	.00	228	.10	4700	15	27600	8840	9610	30000
20	124	1.2	0	.00	0	.00	8650	475	22300	1480	4450	13300
21	125	1.2	0	.00	81	.02	3660	32	16200	895	4250	2130
22	55000	22900	0	.00	88	.05	1530	1.5	826	.36	3880	82
23	4460	530	0	.00	192	.08	430	.23	495	.11	1010	21
24	2840	583	0	.00	68	.01	260	.11	350	.14	1160	24
25	521	183	63	.01	0	.00	304	.09	221	.07	1100	27
26	410	165	2150	.12	0	.00	222	.11	234	.06	1250	427
27	300	96	2550	.48	0	.00	184	.01	291	.16	800	123
28	241	41	370	4.1	0	.00	248	.01	94	.04	2170	2710
29	175	19	320	.21	0	.00	243	.01	---	---	830	235
30	167	13	418	.11	59	.00	177	.03	---	---	1530	1060
31	184	17	---	---	46	.01	311	.01	---	---	1630	1430
TOTAL	---	24631.76	---	443.36	---	3.60	---	534.08	---	70907.05	---	90476.9

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1580	1480	2260	24500	6060	90300	1560	14000	886	986	2230	49
2	1210	729	2900	29400	6060	88400	1640	15400	812	314	101	2.0
3	520	12	2560	27400	7870	84600	1350	12000	702	269	93	1.7
4	867	510	3070	34900	5530	52000	1500	13800	245	84	78	1.4
5	697	71	2730	29400	4660	50100	1070	10200	144	35	79	1.4
6	505	68	2690	29300	4100	46300	1030	9730	201	43	70	1.2
7	322	36	2520	27200	3220	36700	1690	17700	183	36	66	1.2
8	318	60	2510	25200	4200	51400	1700	16300	2990	549	58	1.1
9	230	19	2010	20900	4710	66400	1720	15700	370	50	48	.88
10	1070	1200	3150	37200	4140	50900	1690	13800	197	24	53	.97
11	2400	6330	3060	33900	7740	117000	1370	10600	13900	10700	83	1.6
12	3130	9210	3170	31000	4520	58100	1700	13500	255	58	91	1.7
13	1660	3400	2560	24900	3160	38800	2040	15700	216	51	87	1.6
14	1910	5270	2490	24700	2580	31400	1950	15000	176	23	2500	81
15	2810	7970	2410	22700	3050	33700	1470	12000	34300	26100	11000	13600
16	2510	6270	2200	20600	3250	34800	1230	10500	6450	1320	601	37
17	1650	1260	1870	17000	2600	27400	1390	12900	37100	107000	345	20
18	935	336	2030	17400	2450	26300	2230	22800	13300	16300	231	14
19	2830	12800	2100	15800	3900	41100	2100	18700	1450	1170	167	9.9
20	2440	12300	2980	22700	2410	22800	2080	19400	1180	159	115	6.5
21	2590	13600	3480	33800	1920	17800	1450	13000	750	20	208	14
22	2450	13200	4160	44000	2170	19400	1140	10100	1020	4.7	247	15
23	2360	13800	4710	48500	1780	16200	1140	9630	1070	6.9	181	11
24	2890	20100	4750	49400	1470	13600	1130	9030	713	6.1	159	9.4
25	2540	18900	4940	57900	1910	18500	770	6030	444	6.1	92	5.2
26	3140	28400	4990	64700	1440	14400	1190	9000	200	2.8	62	1.6
27	3180	26400	5500	75100	1420	13600	890	6370	190	2.9	53	.47
28	2870	29600	4900	67700	1420	13500	748	4850	175	3.3	59	.57
29	3090	34000	4760	67600	1220	11100	1390	8260	543	25	61	.74
30	2310	26900	5260	73300	1520	13700	1980	10400	145	3.2	74	.94
31	---	---	6340	87000	---	---	1170	4260	582	13	---	---
TOTAL	---	294231	---	1185100	---	1200300	---	380660	---	165365.0	---	13893.07

TOTAL LOAD FOR YEAR: 3426545.82 TONS.

08355200 NOGAL ARROYO FLOODWAY NEAR SOCORRO, NM

LOCATION.--Lat 34°05'47", long 106°52'50", Socorro County, Hydrologic Unit 13020203, in Town of Socorro Grant, on right bank, 525 ft (160 m) downstream from bridge on Interstate Highway 25, 1.1 mi (1.8 km) north of Socorro.

PERIOD OF RECORD.--February 1969 to September 1977 (discontinued).

GAGE.--Water-stage recorder and concrete lined channel. Altitude of gage is 4,620 ft (1,410 m), from Corps of Engineers plan and profile map. Prior to July 26, 1972 at site 4,000 ft (1,220 m) downstream at different datum.

REMARKS.--Records poor. Nogal Arroyo Floodway intercepts flow of numerous arroyos northwest of Socorro and discharges them into the Rio Grande.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 471 ft^3/s (13.3 m^3/s) July 31, 1969, gage height, 483 ft (1.472 m); no flow most of time.

EXTREMES FOR CURRENT PERIOD.--February to September 1969: Maximum discharge, 471 ft^3/s (13.3 m^3/s) July 31, gage height, 4.83 ft (1.472 m); no flow most of time.

Water year 1970: Maximum discharge, 439 ft^3/s (12.4 m^3/s) July 29, gage height, 4.67 ft (1.423 m); no flow most of time.

Water year 1971: Maximum discharge, 222 ft^3/s (6.3 m^3/s) Sept. 8, gage height, 3.57 ft (1.088 m); no flow most of time.

Water year 1972: Maximum discharge, 117 ft^3/s (3.3 m^3/s) Aug. 18, gage height, 0.45 ft (0.137 m); no flow most of time.

Water year 1973: Maximum discharge, 50 ft^3/s (1.4 m^3/s) Sept. 11, gage height, (not determined); no flow most of time.

Water year 1974: Maximum discharge, 30 ft^3/s (0.8 m^3/s) Sept. 15, gage height, (not determined); no flow most of time.

Water year 1975: Maximum discharge, 143 ft^3/s (4.0 m^3/s) Sept. 12, gage height, 0.55 ft (0.168 m); no flow most of time.

Water year 1976: Maximum discharge, 83 ft^3/s (2.4 m^3/s) Sept. 14, gage height, 0.32 ft (0.111 m); no flow most of time.

Water year 1977: Maximum discharge, 153 ft^3/s (4.3 m^3/s) Aug. 18, gage height, 0.59 ft (0.180 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, FEBRUARY 1969 TO SEPTEMBER 1977

July 27, 1969..... 2.0
July 31, 1969.....20
August 1, 1969.....23
August 3, 1969.....18
September 10, 1969.....40
September 17, 1969.....12
October 21, 1969.....23
October 22, 1969.....37
October 26, 1969.....27
July 28, 1970.....64
August 10, 1970.....18
August 11, 1970.....13
August 14, 1970.....14
July 30, 1971.....10
July 31, 1971..... 5.0
August 13, 1971..... 1.9
August 29, 1971.....10
September 8, 1971.....18
September 9, 1971..... 1.3
September 17, 1971..... 5.0
September 22, 1971..... 5.0
September 23, 1971.....20
September 30, 1971.....10
October 25, 1971.....30
October 29, 1971.....10
July 21, 1972..... 5.0
July 22, 1972..... 1.0
August 16, 1972..... 9.8
August 17, 1972..... .54
August 18, 1972.....17
August 26, 1972.....10
August 30, 1972.....10
August 31, 1972.....20
September 2, 1972.....15
September 6, 1972..... 3.0
September 11, 1972.....20
October 13, 1972.....40.
October 14, 1972..... 2.0
October 19, 1972.....75
October 20, 1972.....10
October 25, 1972.....20
July 10, 1973.....10
July 25, 1973.....15
August 2, 1973..... 2.0
August 22, 1973..... 1.0
August 30, 1973..... 2.0
September 10, 1973..... 1.0
September 11, 1973..... 3.0
July 14, 1974..... 5.0
August 23, 1974..... 5.0
September 15, 1974..... 3.0
September 19, 1974..... 3.0
October 6, 1974..... 2.0
October 10, 1974.....15
October 22, 1974.....10
October 27, 1974..... 5.0
August 21, 1975..... 9.4
September 5, 1975..... 2.4
September 9, 1975.....12
September 10, 1975..... 5.8
September 11, 1975..... 2.0
September 12, 1975.....16
August 19, 1976..... 1.3
August 21, 1976..... .49
September 14, 1976..... 2.0
September 15, 1976..... 1.1
July 5, 1977..... 5.5
July 21, 1977..... .16
July 25, 1977..... .11
August 17, 1977..... 2.5
August 18, 1977..... 6.8
August 19, 1977..... .54

NOTE.--During period February 1, 1969 to September 30, 1977 flow occurred only on days listed above.

08355200 NOGAL ARROYO FLOODWAY NEAR SOCORRO, NM - Continued

DISCHARGE, IN CUBIC FEET PER SECOND, FEBRUARY 1969 TO SEPTEMBER 1977

Month	cfs-days	Maximum	Minimum	Mean	Run off in Acre-feet
July 1969	22.0	20	0	.71	44
August	41	23	0	1.32	81
September	52	40	0	1.73	103
October	87	37	0	2.81	173
July 1970	64	64	0	2.06	127
August	45	18	0	1.45	89
WTR 1970	196	64	0	.54	389
CAL 1970	109	64	0	.30	216
July 1971	15.0	10	0	.48	30
August	11.9	10	0	.38	24
September	59.3	20	0	1.98	118
October	40	30	0	1.29	79
WTR 1971	86.2	20	0	.24	171
August 1972	67.34	20	0	2.17	134
September	38.0	20	0	1.27	75
October	147.0	75	0	4.74	292
July 1973	25	15	0	.81	50
August	5.0	2.0	0	.16	10
September	4.0	3.0	0	.13	7.9
WTR 1973	181.0	75	0	.50	359
CAL 1973	34.0	15	0	.093	67
July 1974	5.0	5.0	0	.16	10
August	5.0	5.0	0	.16	10
September	6.0	10	0	.20	12
October	32.0	15	0	1.03	63
WTR 1974	16.0	10	0	.044	32
CAL 1974	48.0	15	0	.13	95
August 1975	9.4	9.4	0	.30	19
September	38.2	16	0	1.27	76
WTR 1975	79.6	16	0	.22	158
CAL 1975	47.6	16	0	.13	94
August 1976	1.79	1.3	0	.058	3.6
September	3.1	2.0	0	.10	6.1
WTR 1976	4.89	2.0	0	.013	9.7
CAL 1976	4.89	2.0	0	.013	9.7
July 1977	5.77	5.5	0	.19	11
August	9.84	6.8	0	.32	20
WTR 1977	15.61	6.8	0	.043	31

NOTE.--During period February 1, 1969 to September 30, 1977 flow occurred only on days listed above.

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM

(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 33°41'07", long 106°59'40", Socorro County, Hydrologic Unit 13020203, in Pedro Armendaris Grant No. 34, on right bank 0.4 mi (0.6 km) northwest of Atchison, Topeka and Santa Fe Railway Co. bridge over floodway channel, 1.0 mi (1.6 km) southwest of former site of San Marcial, 3.5 mi (5.6 km) downstream from railroad bridge near Tiffany siding, and 51 mi (82 km) downstream from heading at San Acacia.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1958 to September 1959, October 1969 to current year. Prior to October 1964 monthly discharge only published with record for Rio Grande at San Marcial (station 08358500).

GAGE.--Water-stage recorder. Datum of gage is 4,454.00 ft (1,357.579 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Apr. 29, 1958, at datum 4.19 ft (1.277 m) higher.

REMARKS.--Water-discharge records good. Original design and plan was for conveyance channel to carry all flows up to about 2,000 ft³/s (57 m³/s). Conveyance channel is 1 of 2 channels (station 08358400) carrying flow in valley cross section. For combined monthly flow in acre-ft of this channel and floodway see tabulation below daily table for station 08358400.

EXTREMES FOR PERIOD OF RECORD (SINCE 1954).--Maximum daily discharge, 2,200 ft³/s (62.3 m³/s) May 14, 1966; no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	71	25	15	13	15	4.2	.86	22	17	17	1.3
2	15	74	25	18	13	15	4.2	.86	21	17	16	1.3
3	17	73	25	21	13	15	4.5	1.1	20	17	15	1.3
4	20	67	25	22	13	16	4.0	.97	19	17	14	1.3
5	23	58	25	22	13	16	3.2	.86	20	17	13	1.3
6	25	49	26	19	13	17	2.6	.65	20	17	13	.86
7	28	42	28	18	13	25	2.4	.65	21	17	13	.55
8	28	34	30	18	13	38	2.3	.76	22	17	13	.44
9	27	28	25	18	13	46	1.9	.86	22	17	12	.30
10	27	24	23	17	13	52	1.9	.86	22	17	12	.30
11	28	22	25	17	14	57	1.7	.76	22	17	12	.25
12	27	21	30	17	14	59	1.5	.76	22	17	12	.20
13	25	20	27	17	13	63	1.5	.86	22	16	12	.15
14	28	20	21	16	13	63	1.4	.86	22	16	13	.13
15	28	20	17	16	13	62	1.3	.97	21	16	15	1.4
16	25	20	14	16	13	60	1.3	1.1	20	16	14	1.1
17	25	19	10	16	14	52	1.3	1.3	20	16	11	.93
18	24	19	10	18	14	45	1.3	1.2	19	16	9.2	.80
19	23	19	11	18	14	39	1.2	1.2	19	17	8.5	.97
20	22	18	12	17	15	34	1.2	1.2	19	18	10	.97
21	22	18	13	15	14	27	1.3	1.3	18	18	15	.94
22	20	17	13	15	15	21	1.3	1.2	18	18	10	.89
23	16	15	13	15	15	16	1.3	1.1	18	19	8.0	.95
24	19	15	12	14	14	13	1.2	1.3	18	19	5.0	.56
25	31	15	13	15	14	11	1.2	1.4	18	19	2.5	.34
26	38	14	13	15	14	8.5	1.2	1.5	18	19	1.8	.26
27	45	13	13	15	14	6.2	1.2	1.7	18	19	1.4	.25
28	52	17	13	14	15	5.4	1.1	1.5	17	19	1.3	.17
29	58	23	12	14	---	4.5	1.1	1.5	17	19	1.2	.13
30	62	25	12	14	---	3.7	1.1	1.9	17	19	1.3	.13
31	64	---	13	13	---	4.2	---	4.7	---	17	1.2	---
TOTAL	905	890	574	515	382	909.5	56.9	37.74	592	540	303.4	20.47
MEAN	29.2	29.7	18.5	16.6	13.6	29.3	1.90	1.22	19.7	17.4	9.79	.68
MAX	64	74	30	22	15	63	4.5	4.7	22	19	17	1.4
MIN	13	13	10	13	13	3.7	1.1	.65	17	16	1.2	.13
AC-FT	1800	1770	1140	1020	758	1800	113	75	1170	1070	602	41

CAL YR 1978 TOTAL 2874.43 MEAN 7.88 MAX 74 MIN .00 AC-FT 5700
WTR YR 1979 TOTAL 5726.01 MEAN 15.7 MAX 74 MIN .13 AC-FT 11360

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1954 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1954 to current year.
WATER TEMPERATURES: March 1954 to current year.
SUSPENDED SEDIMENT DISCHARGE: March 1954 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,860 micromhos Oct. 25, 1956; minimum daily, 338 micromhos July 15, 1979.
WATER TEMPERATURES: Maximum, 35.0°C on several days during 1955, 1963, and 1971; minimum, 0.0°C on many days during December and January of most years.
SEDIMENT CONCENTRATIONS: Maximum daily, 144,000 mg/L Sept. 19, 1971; minimum daily, no flow on many days during most years.
SEDIMENT LOADS: Maximum daily, 638,000 tons (579,000 tonnes) Aug. 28 1972; minimum daily, 0 tons (0 tonnes) on many days during most years.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,970 micromhos Feb. 27; minimum daily, 338 micromhos July 15.
WATER TEMPERATURES: Maximum, 27.0°C May 29; minimum, 1.0°C Dec. 15, Jan. 3, 5, Feb. 4, 6.
SEDIMENT CONCENTRATIONS: Maximum daily, 4,720 mg/L May 17; minimum daily, 30 mg/L Mar. 18.
SEDIMENT LOADS: Maximum daily, 556 tons (504 tonnes) Nov. 6; minimum daily, .02 tons (.02 tonnes) Sept. 14.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT												
02...	1315	16	740	8.1	--	22.0	18	--	--	--	--	--
09...	1030	27	1090	7.8	--	21.0	24	--	--	--	--	--
10...	1510	29	1190	8.2	27.5	19.5	12	10.8	250	320	--	96
15...	1625	30	707	8.2	--	23.5	25	--	--	--	--	--
23...	0845	20	1410	7.8	--	16.0	7.8	--	--	--	--	--
30...	0645	63	1260	8.0	--	7.0	19	--	--	--	--	--
NOV												
05...	1400	58	1080	8.0	--	9.0	33	--	--	--	--	--
07...	1737	40	1200	7.8	17.5	13.0	--	8.4	--	360	150	110
DEC												
04...	1734	24	1070	--	--	7.0	--	--	--	--	--	--
JAN												
03...	1030	21	1120	7.8	--	1.0	--	--	--	--	--	--
07...	0930	18	142	7.7	--	3.0	22	--	--	--	--	--
15...	1830	16	1450	7.9	--	2.0	27	--	--	--	--	--
28...	1600	14	1710	8.2	--	3.5	17	--	--	--	--	--
FEB												
13...	1230	13	1740	8.2	--	8.0	--	--	--	--	--	--
28...	1414	15	1880	7.9	18.0	12.0	--	12.6	--	--	--	--
28...	1745	15	1840	8.1	--	10.5	60	--	--	--	--	--
MAR												
01...	1405	15	1840	8.3	--	12.0	--	--	--	--	--	--
04...	1400	16	1850	8.0	--	8.5	25	--	--	--	--	--
11...	1510	57	1400	8.0	--	11.5	5.8	--	--	--	--	--
18...	1400	45	1340	8.0	--	12.0	8.8	--	--	--	--	--
26...	1730	8.5	1600	8.0	--	10.5	25	--	--	--	--	--
30...	1700	3.7	1640	8.1	17.0	13.5	--	13.2	--	--	--	--
APR												
01...	1400	4.2	1580	8.5	--	11.0	11	--	--	--	--	--
02...	1330	4.0	1620	8.0	--	11.0	--	--	--	--	--	--
20...	1620	1.2	1480	8.0	24.5	22.0	--	6.9	--	--	--	--
MAY												
24...	2124	1.3	1300	7.9	--	19.0	--	6.9	--	--	--	--
JUL												
02...	0710	17	518	7.8	--	19.5	68	--	--	--	--	--
09...	0715	17	541	8.0	--	19.0	100	--	--	--	--	--
10...	1840	17	369	7.8	34.0	25.0	--	5.8	--	--	--	--
16...	0715	16	536	7.5	--	20.0	96	--	--	--	--	--
AUG												
23...	1800	8.0	1110	8.1	30.5	26.0	--	15.6	--	--	--	--
SEP												
26...	1818	.25	1590	8.2	24.5	25.0	--	13.4	--	--	--	--

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT											
02...	--	--	--	--	--	--	--	--	--	--	.00
09...	--	--	--	--	--	--	--	--	--	--	.01
10...	20	130	3.2	8.3	230	250	89	.7	26	787	.01
15...	--	--	--	--	--	--	--	--	--	--	.04
23...	--	--	--	--	--	--	--	--	--	--	.01
30...	--	--	--	--	--	--	--	--	--	--	.12
NOV											
05...	--	--	--	--	--	--	--	--	--	--	.24
07...	20	130	3.0	8.0	210	290	100	.5	23	--	--
DEC											
04...	--	--	--	--	--	--	--	--	--	--	--
JAN											
03...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	.14
15...	--	--	--	--	--	--	--	--	--	--	.12
28...	--	--	--	--	--	--	--	--	--	--	.01
FEB											
13...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	.02
MAR											
01...	--	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--	.05
11...	--	--	--	--	--	--	--	--	--	--	.02
18...	--	--	--	--	--	--	--	--	--	--	.05
26...	--	--	--	--	--	--	--	--	--	--	.01
30...	--	--	--	--	--	--	--	--	--	--	--
APR											
01...	--	--	--	--	--	--	--	--	--	--	.01
02...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
24...	--	--	--	--	--	--	--	--	--	--	--
JUL											
02...	--	--	--	--	--	--	--	--	--	--	.09
09...	--	--	--	--	--	--	--	--	--	--	.09
10...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	.17
AUG											
23...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	--	--	--	--	--	--	--	--	--	--	--

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT											
02...	--	.00	.76	.76	.180	--	--	--	--	--	--
09...	--	.03	1.1	1.1	.200	--	--	--	--	--	--
10...	.00	.01	.76	.78	.170	.09	220	10	5.7	4.7	1.3
15...	--	.03	.58	.65	.080	--	--	--	--	--	--
23...	--	.01	.32	.34	.110	--	--	--	--	--	--
30...	--	.01	.69	.82	.220	--	--	--	--	--	--
NOV											
05...	--	.10	.71	1.1	.330	--	--	--	--	--	--
07...	.34	--	--	--	1.50	.14	240	20	24	--	--
DEC											
04...	--	--	--	--	--	--	--	--	--	--	--
JAN											
03...	--	--	--	--	--	--	--	--	--	--	--
07...	--	.04	.80	.98	.300	--	--	--	--	--	--
15...	--	.02	.50	.64	.200	--	--	--	--	--	--
28...	--	.01	.54	.56	.060	--	--	--	--	--	--
FEB											
13...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
28...	--	.07	.61	.70	.060	--	--	--	--	--	--
MAR											
01...	--	--	--	--	--	--	--	--	--	--	--
04...	--	.10	.57	.72	.050	--	--	--	--	--	--
11...	--	.05	.40	.47	.120	--	--	--	--	--	--
18...	--	.05	.35	.45	.060	--	--	--	--	--	--
26...	--	.04	.38	.43	.020	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
APR											
01...	--	.03	.40	.44	.040	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
MAY											
24...	--	--	--	--	--	--	--	--	--	--	--
JUL											
02...	--	.04	.62	.75	.210	--	--	--	--	--	--
09...	--	.06	.56	.71	.190	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
16...	--	.15	.64	.96	.180	--	--	--	--	--	--
AUG											
23...	--	--	--	--	--	--	--	--	--	--	--
SEP											
26...	--	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)
OCT				
10...	1510	220	10	9

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITROGEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)
OCT							
10...	1510	2.2	5	0	1	4	3

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
OCT						
10...	150000	4	190	.01	0	8

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DISSOLVED, EXTRACTION (UG/L) (80020)
OCT									
10...	1510	1.1	1.1	13	1.2	1.2	1.2	.08	3.4

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
10...	1510	45	140
NOV			
07...	1737	1200	3400
SEP			
26...	1818	58	--

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON

DATE	NOV 7,78
TIME	1737
TOTAL CELLS/ML	4200
DIVERSITY: DIVISION	1.5
.CLASS	1.5
..ORDER	1.7
...FAMILY	1.9
....GENUS	1.9

ORGANISM	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)		
.CHLOROPHYCEAE		
..CHLOROCOCCALES		
...OOCYSTACEAE		
....CHODATELLA	220	5
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	220	5
..PENNALES		
...NAVICULACEAE		
....NAVICULA	220	5
...NITZSCHIACEAE		
....NITZSCHIA	670#	16
CYANOPHYTA (BLUE-GREEN ALGAE)		
.CYANOPHYCEAE		
..HORMOGONALES		
...OSCILLATORIACEAE		
....OSCILLATORIA	2400#	58
EUGLENOPHYTA (EUGLENOIDS)		
.EUGLENOPHYCEAE		
..EUGLENALES		
...EUGLENACEAE		
....TRACHELOMONAS	440	11

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PHYTOPLANKTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS) (00022)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	SAMPLING METHOD
OCT							
10...	1510	29	5.04	4.10	1.74	.420	Polyethylene strip

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)
OCT							
10...	1510	29	19.5	34	2.7	--	--
NOV							
07...	1737	40	13.0	2540	274	73	86
14...	1700	21	8.0	706	40	77	87
DEC							
04...	1734	24	7.0	586	38	70	81
JAN							
19...	1655	18	3.0	118	5.7	--	--
FEB							
28...	1414	15	12.0	90	3.6	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT						
10...	--	--	88	--	--	--
NOV						
07...	96	100	--	--	--	--
14...	97	--	99	100	--	--
DEC						
04...	99	--	99	99	100	--
JAN						
19...	--	--	92	94	96	100
FEB						
28...	--	--	77	87	95	100

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1210	930	1040	1130	1690	1940	620	1430	620	529	500	---
2	1170	1110	1000	667	1700	1960	1480	1230	600	543	600	---
3	1190	1080	970	1170	1640	1750	1180	1140	586	539	600	---
4	1210	1320	610	1440	1710	1920	1410	1140	630	510	600	---
5	1230	929	655	715	1640	1900	1320	1150	628	500	610	---
6	1170	1250	1150	1480	1580	1400	1320	627	669	500	---	---
7	1190	863	689	1530	1710	1390	1340	1300	629	510	---	---
8	1160	909	944	1480	1720	1390	1350	1160	666	550	---	---
9	1190	1080	982	718	1720	1390	1360	1160	656	500	---	---
10	1400	1180	597	1470	1720	1340	1340	1120	665	500	---	---
11	1410	1300	673	1540	1620	1330	1280	1190	471	500	---	---
12	1370	1180	862	1750	---	1400	1260	1170	691	500	---	---
13	1390	650	975	1780	1610	---	1330	1200	661	500	---	---
14	1390	1230	963	1790	1900	1180	1380	1250	674	500	---	---
15	1120	1120	914	1740	1790	1440	1400	1100	646	338	---	---
16	1130	1160	1020	1750	1770	1440	1390	422	653	540	---	---
17	920	1090	987	1770	1790	1350	1380	423	1040	500	---	---
18	1080	1170	650	1740	1730	1240	1250	1110	669	540	---	---
19	1080	1100	1440	1750	1920	1390	1330	1170	591	510	---	---
20	1100	1110	1430	1610	1760	1380	1400	433	621	510	---	---
21	1280	660	1320	1590	1870	1310	1350	1160	530	540	---	---
22	1240	910	1230	1760	1860	1220	1330	1110	1090	364	---	---
23	1060	648	634	1680	1790	1480	1400	1180	637	510	1260	---
24	1050	887	1400	1700	1720	1580	1370	498	543	500	---	---
25	1060	---	1460	1660	1750	1550	1320	466	520	370	---	---
26	915	---	975	1650	1910	1560	1390	1170	---	560	---	1380
27	928	---	1440	1760	1970	1570	1280	1190	558	530	---	---
28	918	---	1450	1760	1830	1490	1430	1240	670	510	---	---
29	924	---	1390	1630	---	1570	1410	1160	1150	500	---	---
30	903	1000	1420	1720	---	1490	1350	616	550	500	---	---
31	927	---	1430	1760	---	1520	---	606	---	510	---	---
MEAN	1140	1030	1050	1540	1760	1500	1330	1010	666	500	695	1380

WTR YR 1979 MEAN 1140 MAX 1970 MIN 338

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.0	6.5	2.0	3.0	5.5	12.0	11.0	20.5	22.5	22.0	25.0	---
2	22.0	10.0	1.5	3.0	3.0	11.0	11.0	21.0	23.0	23.0	24.0	---
3	18.0	10.5	2.0	1.0	4.0	12.0	11.0	22.0	23.0	22.0	24.5	---
4	17.0	9.0	2.5	2.0	1.0	14.0	12.0	21.5	19.0	20.0	23.5	---
5	16.5	8.5	2.5	1.0	1.5	13.0	17.5	20.0	19.0	20.0	24.0	---
6	18.0	15.0	2.5	2.5	1.0	9.0	17.5	23.0	23.5	21.0	---	---
7	19.5	8.5	1.5	3.0	4.5	11.0	18.0	23.5	19.5	19.0	---	---
8	17.0	5.5	1.5	2.5	5.0	12.0	19.0	20.0	18.0	22.0	---	---
9	17.0	9.5	2.5	3.0	7.0	13.0	19.0	23.0	24.5	20.0	---	---
10	17.0	9.0	1.5	4.0	6.0	10.0	20.0	20.0	24.0	21.0	---	---
11	19.5	7.5	1.5	3.0	8.0	8.5	21.0	20.0	21.0	22.0	---	---
12	17.0	7.0	2.5	2.5	---	13.0	21.0	22.5	20.0	23.5	---	---
13	17.5	9.5	1.5	2.0	8.0	---	19.5	25.0	19.0	21.0	---	---
14	17.0	8.0	2.5	2.5	8.0	13.5	18.0	21.0	20.0	23.0	---	---
15	13.0	9.0	1.0	2.5	8.0	12.0	18.0	20.0	19.5	21.0	---	---
16	14.0	9.5	6.5	2.5	8.5	13.5	21.5	24.0	18.0	23.5	---	---
17	12.0	8.0	6.0	2.5	9.0	13.0	15.5	25.0	17.0	22.0	---	---
18	12.0	8.5	3.0	2.0	8.5	13.5	15.0	22.0	20.0	23.0	---	---
19	13.5	7.0	7.5	3.0	9.0	13.0	19.0	25.0	20.0	24.0	---	---
20	13.0	8.0	2.0	3.0	8.0	11.0	22.0	25.5	20.0	20.0	---	---
21	12.0	8.5	2.0	3.0	8.5	9.0	22.0	25.0	20.0	24.5	---	---
22	14.0	8.0	3.5	9.0	6.0	14.0	22.0	26.0	22.0	22.0	---	---
23	12.0	8.0	3.0	5.0	6.5	12.0	21.0	26.0	21.0	23.5	26.0	---
24	10.0	5.5	3.0	5.0	8.0	11.5	22.0	26.5	24.0	24.0	---	---
25	8.0	---	3.0	7.5	9.0	13.0	21.0	25.0	20.0	26.0	---	---
26	12.0	---	3.0	4.5	13.0	11.0	22.0	24.5	---	24.0	---	25.0
27	12.5	---	3.0	4.0	9.0	12.5	19.0	18.5	22.0	26.0	---	---
28	13.0	---	3.5	4.0	12.0	13.0	21.0	26.5	22.0	22.0	---	---
29	12.0	---	3.5	5.0	---	12.0	20.0	27.0	19.0	24.0	---	---
30	10.0	10.0	3.0	5.0	---	13.5	20.0	25.0	22.0	23.5	---	---
31	7.0	---	3.0	7.0	---	15.0	---	25.0	---	23.5	---	---
MEAN	14.5	8.5	3.0	3.5	7.0	12.0	18.5	23.0	21.0	22.5	24.5	25.0

WTR YR 1979 MEAN 13.5 MAX 27.0 MIN 1.0

08358300 RIO GRANDE CONVEYANCE CHANNEL AT SAN MARCIAL, NM -- Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	62	2.2	264	51	703	47	446	18	315	11	124	5.0
2	79	3.2	263	53	1570	106	386	19	94	3.3	119	4.8
3	81	3.7	254	50	700	47	208	12	110	3.9	171	6.9
4	76	4.1	432	78	950	64	175	10	89	3.1	130	5.6
5	67	4.2	365	57	1280	86	144	8.6	104	3.7	113	4.9
6	90	6.1	4200	556	1150	81	280	14	120	4.2	59	2.7
7	78	5.9	3400	386	618	47	304	15	124	4.4	60	4.1
8	81	6.2	390	36	674	55	228	11	131	4.6	61	6.3
9	83	6.1	570	43	330	22	423	21	113	4.0	65	8.1
10	69	5.0	575	37	785	49	110	5.0	125	4.4	100	14
11	95	7.2	550	33	503	34	165	7.6	129	4.9	95	15
12	105	7.7	511	29	277	22	105	4.8	119	4.5	180	29
13	64	4.3	750	40	174	13	75	3.4	126	4.4	240	41
14	54	4.1	680	37	178	10	130	5.6	226	7.9	178	30
15	89	6.7	650	35	113	5.2	91	3.9	365	13	125	21
16	94	6.3	603	33	211	8.0	96	4.1	229	8.0	81	13
17	103	7.0	695	36	124	3.3	130	5.6	258	9.8	43	6.0
18	124	8.0	606	31	183	4.9	116	5.6	349	13	30	3.6
19	105	6.5	565	29	112	3.3	117	5.7	333	13	44	4.6
20	72	4.3	452	22	174	5.6	168	7.7	261	11	47	4.3
21	64	3.8	645	31	413	14	175	7.1	189	7.1	38	2.8
22	107	5.8	379	17	218	7.7	157	6.4	176	7.1	61	3.5
23	49	2.1	580	23	332	12	462	19	223	9.0	78	3.4
24	61	3.1	290	12	339	11	312	12	222	8.4	126	4.4
25	46	3.9	239	9.7	189	6.6	110	4.5	148	5.6	78	2.3
26	104	11	225	8.5	317	11	121	4.9	133	5.0	94	2.2
27	167	20	212	7.4	114	4.0	178	7.2	138	5.2	80	1.3
28	416	58	396	18	100	3.5	172	6.5	153	6.2	81	1.2
29	236	37	563	35	80	2.6	113	4.3	---	---	75	.91
30	120	20	538	36	505	16	97	3.7	---	---	280	2.8
31	145	25	---	---	452	16	88	3.1	---	---	161	1.8
TOTAL	---	298.4	---	1869.6	---	817.7	---	266.3	---	189.7	---	256.51

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	144	1.6	196	.46	141	8.4	223	10	139	6.4	90	.32
2	127	1.4	197	.46	119	6.7	195	9.0	154	6.7	90	.32
3	132	1.6	229	.68	146	7.9	209	9.6	134	5.4	90	.32
4	169	1.8	228	.60	102	5.2	157	7.2	128	4.8	90	.32
5	265	2.3	242	.56	100	5.4	155	7.1	127	4.5	85	.30
6	231	1.6	860	1.5	148	8.0	127	5.8	125	4.4	80	.19
7	215	1.4	1320	2.3	113	6.4	195	9.0	125	4.4	80	.12
8	275	1.7	418	.86	102	6.1	229	11	120	4.2	80	.10
9	172	.88	272	.63	185	11	165	7.6	120	3.9	75	.06
10	150	.77	269	.62	111	6.6	124	5.7	110	3.6	75	.06
11	227	1.0	224	.46	355	21	140	6.4	110	3.6	75	.05
12	166	.67	161	.33	174	10	134	6.2	125	4.1	70	.04
13	165	.67	134	.31	266	16	135	5.8	120	3.9	70	.03
14	150	.57	145	.34	174	10	182	7.9	120	4.2	70	.02
15	186	.65	150	.39	274	16	548	24	125	5.1	150	.57
16	192	.67	3260	9.7	105	5.7	297	13	125	4.7	160	.48
17	212	.74	4720	17	253	14	136	5.9	120	3.6	160	.40
18	261	.92	250	.81	138	7.1	1070	46	100	2.5	165	.36
19	268	.87	260	.84	137	7.0	310	14	90	2.1	165	.43
20	308	1.0	503	1.6	178	9.1	249	12	120	3.2	160	.42
21	251	.88	250	.88	302	15	183	8.9	130	5.3	160	.41
22	195	.68	213	.69	284	14	559	27	130	3.5	160	.38
23	196	.69	202	.60	210	10	440	23	132	2.9	155	.40
24	249	.81	292	1.0	134	6.5	525	27	130	1.8	155	.23
25	314	1.0	438	1.7	274	13	942	48	125	.84	150	.14
26	258	.84	227	.92	305	15	217	11	110	.53	168	.12
27	200	.65	160	.73	190	9.2	215	11	100	.38	165	.11
28	248	.74	220	.89	140	6.4	197	10	100	.35	165	.08
29	191	.57	152	.62	242	11	165	8.5	100	.32	160	.06
30	192	.57	165	.85	217	10	129	6.6	95	.33	150	.05
31	---	---	214	2.5	---	---	200	9.2	95	.31	---	---
TOTAL	---	30.24	---	51.83	---	297.7	---	413.4	---	101.86	---	6.89

TOTAL LOAD FOR YEAR: 4600.13 TONS.

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM

(National stream-quality accounting network, surveillance network, and radiochemical network station)

LOCATION.--Lat 33°40'50", long 106°59'30", Socorro County, Hydrologic Unit 13020203, in Pedro Armendaris Grant No. 33, on pier of the Atchison, Topeka, and Santa Fe Railway Co. bridge, 1.1 mi (1.8 km) downstream from former site of San Marcial, 18.5 mi (29.8 km) southwest of San Antonio, and at mile 1,425.2 (2,293.1 km).

DRAINAGE AREA.--27,700 mi² (71,740 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year. Records collected at this site January 1895 to September 1964 represented total flow of the river and were published as Rio Grande at San Marcial (station 08358500). Records of daily discharge for floodway only April 1950 to September 1964 are available in files of district office.

GAGE.--Water-stage recorder. Datum of gage is 4,455.19 ft (1,357.942 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records fair. Floodway is 1 of 2 channels (station 08358300) carrying flow in valley cross section. Prior to 1950 all flow was in floodway channel. Normal plan is for floodway to carry flow when capacity of conveyance channel (about 2,000 ft³/s or 57 m³/s) is exceeded. Combined monthly discharge in acre-ft is given at end of each year table. Diversion for irrigation of about 775,000 acres (3,100 km²) above station (includes about 13,800 acre-ft or 17.0 hm³ diverted from conveyance channel, as based on weekly measurements, data furnished by Bureau of Reclamation).

AVERAGE DISCHARGE.--15 years (water years 1965-79), 407 ft³/s (11.53 m³/s), 294,900 acre-ft/yr (364 hm³/yr).
Total flow of river.--84 years (water years 1895-79), 1,234 ft³/s (34.95 m³/s), 894,000 acre-ft/yr (1,102 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, since January 1895 about 50,000 ft³/s (1,420 m³/s) Oct. 11, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,510 ft³/s (184 m³/s) June 10, gage height, 16.20 ft (4.938 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.04	950	758	631	753	1780	5100	5890	4240	2300	349
2	.00	83	864	822	603	748	1890	5130	6240	4460	1500	350
3	.00	180	784	808	516	803	1630	5200	6100	4540	905	308
4	.00	287	798	553	603	816	1460	5360	5270	4650	814	233
5	.00	381	751	472	589	798	1590	5450	5480	4850	706	196
6	.00	881	722	468	715	604	1190	5300	5780	4990	698	163
7	.00	796	714	466	701	746	1210	5260	5830	4910	664	120
8	.00	712	681	479	568	788	939	5170	5680	5240	608	134
9	.00	642	680	530	450	696	1100	5170	5930	5090	473	129
10	.00	542	675	727	589	980	1020	5420	6260	4880	452	106
11	.00	603	650	854	680	1400	1790	5580	5810	4580	486	76
12	.00	666	574	728	680	2080	2210	5600	6010	4430	472	87
13	.00	777	423	589	726	1670	2290	5540	5890	4350	416	143
14	.00	991	411	620	768	1130	2080	5490	5810	4380	632	132
15	.00	919	646	740	1020	1350	2310	4840	5710	4320	752	717
16	.00	937	1100	692	1290	1370	2500	4730	5680	4480	1290	860
17	.00	846	1080	638	1540	1780	2280	4700	5570	4720	1700	740
18	.00	773	1060	659	1650	1890	1850	4500	5560	5000	2640	709
19	.00	869	1110	681	1540	2040	2020	4300	5570	5250	1960	745
20	.00	798	897	1350	1500	2460	2890	3600	5350	5220	1590	712
21	.00	849	984	1530	1380	2450	3290	3500	4980	5190	1390	664
22	.00	836	1320	1330	1330	1610	3530	3600	4830	5170	1280	680
23	6.6	780	1320	928	1160	1120	3660	3800	4700	5080	1220	551
24	8.9	743	1050	880	1070	1150	3760	4100	4540	4930	1130	462
25	11	722	783	673	974	990	3940	4300	4440	4870	936	357
26	22	716	663	666	855	1070	4140	4520	4380	4780	712	371
27	13	782	638	655	813	1090	4450	5410	4310	4530	664	309
28	7.4	1290	611	645	820	1140	4470	6160	4130	4180	559	255
29	.99	1120	595	688	---	1820	4800	6130	4190	3990	549	150
30	.51	1030	619	675	---	1730	5020	6050	4230	3830	523	91
31	.15	---	663	690	---	1890	---	5900	---	3160	447	---
TOTAL	70.55	21551.04	24816	22994	25761	40962	77089	154910	160150	144290	30468	10899
MEAN	2.28	718	801	742	920	1321	2570	4997	5338	4655	983	363
MAX	22	1290	1320	1530	1650	2460	5020	6160	6260	5250	2640	860
MIN	.00	.04	411	466	450	604	939	3500	4130	3160	416	76
AC-FT	140	42750	49220	45610	51100	81250	152900	307300	317700	286200	60430	21620
(†)	1940	44520	50360	46630	51860	83050	153000	307400	318900	287300	61030	21660

CAL YR 1978 TOTAL 207700.45 MEAN 569 MAX 2910 MIN .00 AC-FT 412000 (†) MEAN 577 AC-FT 417700
WTR YR 1979 TOTAL 713960.59 MEAN 1956 MAX 6260 MIN .00 AC-FT 1416000 (†) MEAN 1972 AC-FT 1427000

† COMBINED FLOW, IN ACRE-FT AND MEAN, IN FT³/S, OF FLOODWAY AND CONVEYANCE CHANNEL.

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1905-07, 1946 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1905 to April 1907, July 1946 to current year.
WATER TEMPERATURES: January 1949 to current year.
SUSPENDED SEDIMENT DISCHARGE: July 1946 to current year.

REMARKS.--Records of chemical analyses and sediment discharge for years prior to 1946 have been published in Water Bulletins of International Boundary and Water Commission. Additional sediment total load determinations were made bi-weekly when needed.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,730 micromhos Apr. 8, 1953; minimum daily, 293 micromhos June 20, 1967.
WATER TEMPERATURES: Maximum, 36.0°C Aug. 11, 1951; minimum, 0.0°C on many days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 135,000 mg/L July 23, 1977; minimum daily, no flow on many days each year.
SEDIMENT LOADS: Maximum daily, 966,000 tons (876,000 tonnes) Oct. 22, 1957; minimum daily, 0 ton (0 tonne) many days each year.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,510 micromhos Jan. 5.; minimum daily, 312 micromhos July 5.
WATER TEMPERATURES: Maximum, 28.0°C May 28; minimum, 1.0°C on several days during December, January, and February.
SEDIMENT CONCENTRATIONS: Maximum daily, 55,300 mg/L Oct. 24; minimum daily, no flow on many days in October and November.
SEDIMENT LOADS: Maximum daily, 276,000 tons (250,000 tonnes) Aug. 18; minimum daily, 0 ton (0 tonne) on many days in October and November.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT												
24...	0910	7.4	1230	7.6	--	8.0	--	--	--	--	--	--
NOV												
06...	1030	880	1180	7.8	--	12.0	--	--	--	--	--	--
07...	1607	733	840	7.8	18.0	13.0	28	8.4	210	230	--	73
14...	0915	972	647	7.9	--	10.0	26	--	--	--	--	--
19...	1045	862	662	8.0	--	8.0	28	--	--	--	--	--
26...	1315	708	921	7.9	--	8.0	160	--	--	--	--	--
DEC												
03...	1400	757	659	8.0	--	5.8	530	--	--	--	--	--
04...	1441	820	650	8.3	7.0	4.0	510	11.4	44	190	44	61
10...	0810	680	667	8.0	--	4.0	190	--	--	--	--	--
17...	1300	1120	--	--	--	4.0	290	--	--	--	--	--
25...	1200	736	620	8.0	--	4.0	580	--	--	--	--	--
JAN												
02...	1240	757	--	--	--	3.0	2.7	--	--	--	--	--
03...	1130	890	630	7.8	--	1.0	--	--	--	--	--	--
05...	1111	480	700	8.1	6.0	4.0	28	11.2	32	210	45	64
21...	0730	1650	--	--	--	4.0	31	--	--	--	--	--
FEB												
04...	1600	603	--	--	--	5.0	21	--	--	--	--	--
11...	1115	680	--	--	--	5.0	23	--	--	--	--	--
13...	0930	735	654	8.0	--	8.0	--	--	--	--	--	--
18...	1250	1790	--	--	--	11.5	33000	--	--	--	--	--
28...	1028	820	621	7.9	11.0	7.0	1300	10.3	76	190	40	58
MAR												
01...	1230	819	646	8.2	--	10.0	--	--	--	--	--	--
15...	1430	1540	696	7.8	--	13.0	--	--	--	--	--	--
30...	1230	1800	464	8.1	18.5	10.5	400	9.6	160	160	34	52
APR												
02...	1015	2040	485	7.9	--	10.0	--	--	--	--	--	--
08...	1330	939	--	--	--	18.5	350	--	--	--	--	--
15...	1100	2310	--	--	--	18.0	350	--	--	--	--	--
16...	1000	2400	506	7.7	--	17.0	--	--	--	--	--	--
20...	1220	2900	520	8.1	26.0	15.5	700	8.3	130	160	58	48
22...	1735	3600	--	--	--	16.0	580	--	--	--	--	--
30...	0900	5000	--	--	--	14.0	600	--	--	--	--	--
MAY												
01...	1440	5000	470	7.7	--	18.0	--	--	--	--	--	--
06...	1400	5210	--	--	--	18.0	460	--	--	--	--	--
13...	1400	5560	--	--	--	22.0	900	--	--	--	--	--
14...	1145	5220	377	7.7	--	16.0	--	--	--	--	--	--
20...	1425	3570	--	--	--	21.5	380	--	--	--	--	--
24...	1844	4100	404	8.1	21.0	18.5	1400	7.3	94	120	32	36
30...	1500	6020	--	--	--	25.5	640	--	--	--	--	--
JUN												
03...	1410	6030	--	--	--	26.5	540	--	--	--	--	--
10...	1615	6440	--	--	--	22.0	490	--	--	--	--	--

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JUN												
19...	1319	5600	375	7.9	26.0	18.0	580	7.5	67	120	30	37
19...	1430	5670	--	--	--	20.0	480	--	--	--	--	--
24...	1500	4550	--	--	--	23.0	270	--	--	--	--	--
JUL												
02...	0645	4350	--	--	--	19.0	170	--	--	--	--	--
06...	1000	4910	331	7.8	--	19.0	--	--	--	110	20	35
09...	0640	5060	--	--	--	19.0	3300	--	--	--	--	--
10...	1551	4800	404	7.8	35.0	25.0	350	5.8	54	110	17	34
16...	0645	4460	--	--	--	19.5	240	--	--	--	--	--
23...	0650	5180	--	--	--	19.0	310	--	--	--	--	--
30...	0650	3880	--	--	--	22.0	78	--	--	--	--	--
30...	1245	3590	380	7.7	--	21.5	--	--	--	--	--	--
AUG												
06...	0645	680	--	--	--	21.0	92	--	--	--	--	--
13...	0650	385	--	--	--	21.0	700	--	--	--	--	--
13...	1115	403	890	7.7	--	19.0	--	--	--	300	140	98
20...	0635	1590	--	--	--	18.0	6900	--	--	--	--	--
23...	1423	1220	500	7.9	31.5	25.0	470	6.7	63	160	25	49
27...	0715	664	--	--	--	18.5	200	--	--	--	--	--
SEP												
04...	0710	201	--	--	--	18.0	170	--	--	--	--	--
10...	0610	115	--	--	--	18.0	39	--	--	--	--	--
17...	0615	720	--	--	--	13.5	15000	--	--	--	--	--
24...	0650	462	--	--	--	13.0	280	--	--	--	--	--
26...	1456	371	769	8.3	26.5	22.0	160	7.7	34	220	39	68

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT												
24...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
06...	--	--	--	--	--	--	--	--	--	--	--	--
07...	12	81	2.3	5.4	150	170	52	.5	19	562	503	1.0
14...	--	--	--	--	--	--	--	--	--	--	--	.84
19...	--	--	--	--	--	--	--	--	--	--	--	.84
26...	--	--	--	--	--	--	--	--	--	--	--	.61
DEC												
03...	--	--	--	--	--	--	--	--	--	--	--	.81
04...	10	62	1.9	5.6	150	140	36	.4	24	419	434	.71
10...	--	--	--	--	--	--	--	--	--	--	--	.47
17...	--	--	--	--	--	--	--	--	--	--	--	.42
25...	--	--	--	--	--	--	--	--	--	--	--	.49
JAN												
02...	--	--	--	--	--	--	--	--	--	--	--	.06
03...	--	--	--	--	--	--	--	--	--	--	--	--
05...	11	69	2.1	5.9	160	150	43	.4	28	447	471	.33
21...	--	--	--	--	--	--	--	--	--	--	--	.93
FEB												
04...	--	--	--	--	--	--	--	--	--	--	--	.74
11...	--	--	--	--	--	--	--	--	--	--	--	.78
13...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	1.2
28...	11	57	1.8	4.3	150	100	32	.6	23	395	382	1.1
MAR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
30...	8.4	38	1.3	4.6	130	91	19	.4	20	312	315	.54
APR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--	.68
15...	--	--	--	--	--	--	--	--	--	--	--	.54
16...	--	--	--	--	--	--	--	--	--	--	--	--
20...	8.7	37	1.3	4.2	98	110	17	.4	21	311	307	.40
22...	--	--	--	--	--	--	--	--	--	--	--	.37
30...	--	--	--	--	--	--	--	--	--	--	--	.49
MAY												
01...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--	.33
13...	--	--	--	--	--	--	--	--	--	--	--	.29
14...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--	.26
24...	6.9	29	1.2	3.6	86	66	13	.4	17	241	225	.26
30...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
03...	--	--	--	--	--	--	--	--	--	--	--	.22
10...	--	--	--	--	--	--	--	--	--	--	--	.24

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
JUN												
19...	6.0	26	1.0	3.6	87	53	11	.3	19	216	209	.27
19...	--	--	--	--	--	--	--	--	--	--	--	.21
24...	--	--	--	--	--	--	--	--	--	--	--	.19
JUL												
02...	--	--	--	--	--	--	--	--	--	--	--	.16
06...	6.1	27	1.1	12	93	58	16	.3	9.3	--	221	--
09...	--	--	--	--	--	--	--	--	--	--	--	.44
10...	5.6	23	1.0	3.7	91	60	12	.4	21	212	216	.04
16...	--	--	--	--	--	--	--	--	--	--	--	.24
23...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	.25
30...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
06...	--	--	--	--	--	--	--	--	--	--	--	.30
13...	--	--	--	--	--	--	--	--	--	--	--	.70
13...	14	80	2.0	5.6	160	230	47	.5	25	--	601	--
20...	--	--	--	--	--	--	--	--	--	--	--	.78
23...	8.0	49	1.7	4.7	130	100	32	.5	24	345	348	.61
27...	--	--	--	--	--	--	--	--	--	--	--	.51
SEP												
04...	--	--	--	--	--	--	--	--	--	--	--	.19
10...	--	--	--	--	--	--	--	--	--	--	--	.08
17...	--	--	--	--	--	--	--	--	--	--	--	.93
24...	--	--	--	--	--	--	--	--	--	--	--	.47
26...	12	73	2.1	6.3	180	150	45	.6	26	499	491	.35

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT												
24...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
06...	--	--	--	--	--	--	--	--	--	--	--	--
07...	1.0	.05	11	12	4.60	.15	210	10	--	94	3.0	>50
14...	--	.02	2.3	3.1	1.50	--	--	--	--	--	--	--
19...	--	.08	1.5	2.4	1.00	--	--	--	--	--	--	--
26...	--	.07	.78	1.5	.520	--	--	--	--	--	--	--
DEC												
03...	--	.13	1.5	2.4	1.40	--	--	--	--	--	--	--
04...	.68	.03	1.6	2.3	.750	.46	160	40	0	--	3.5	8.2
10...	--	.26	.94	1.7	.820	--	--	--	--	--	--	--
17...	--	.30	1.5	2.2	1.30	--	--	--	--	--	--	--
25...	--	.29	1.0	1.8	.920	--	--	--	--	--	--	--
JAN												
02...	--	.01	.58	.65	.060	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
05...	.35	.16	.94	1.4	.580	.42	150	150	--	9.9	2.8	4.8
21...	--	.43	8.7	10	4.70	--	--	--	--	--	--	--
FEB												
04...	--	.35	.65	1.7	.850	--	--	--	--	--	--	--
11...	--	.27	1.0	2.1	.880	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	.11	4.0	5.3	3.10	--	--	--	--	--	--	--
28...	1.1	.03	2.7	3.8	.430	.38	130	60	--	25	2.1	16
MAR												
01...	--	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--	--
30...	.54	.03	1.4	1.9	1.10	.23	80	40	0	--	3.1	6.9
APR												
02...	--	--	--	--	--	--	--	--	--	--	--	--
08...	--	.09	.75	1.5	.560	--	--	--	--	--	--	--
15...	--	.07	.93	1.5	1.40	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--
20...	.34	.02	2.2	2.6	1.10	.13	90	40	--	33	5.7	19
22...	--	.20	1.2	1.8	.700	--	--	--	--	--	--	--
30...	--	.06	2.5	3.1	1.90	--	--	--	--	--	--	--
MAY												
01...	--	--	--	--	--	--	--	--	--	--	--	--
06...	--	.06	1.9	2.3	.680	--	--	--	--	--	--	--
13...	--	.07	2.0	2.4	1.30	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
20...	--	.03	2.1	2.4	.850	--	--	--	--	--	--	--
24...	.21	.05	2.0	2.3	.850	.03	80	10	--	11	7.9	19
30...	--	--	1.2	1.5	--	--	--	--	--	--	--	--
JUN												
03...	--	.03	1.2	1.4	.520	--	--	--	--	--	--	--
10...	--	.05	.95	1.2	.500	--	--	--	--	--	--	--

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
JUN												
19...	.17	.05	1.8	2.1	.110	.05	50	30	0	--	7.7	24
19...	--	.06	1.0	1.3	.000	--	--	--	--	--	--	--
24...	--	.02	1.6	1.8	.950	--	--	--	--	--	--	--
JUL												
02...	--	.03	1.1	1.3	.360	--	--	--	--	--	--	--
06...	.37	--	--	--	.480	.11	60	20	--	--	--	--
09...	--	.02	3.0	3.4	.090	--	--	--	--	--	--	--
10...	.21	.03	6.5	6.5	.400	.08	150	20	--	9.9	5.7	7.4
16...	--	.24	.86	1.3	.520	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
30...	--	.02	.54	.81	.430	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
06...	--	.01	.57	.88	.240	--	--	--	--	--	--	--
13...	--	.05	7.5	8.2	2.70	--	--	--	--	--	--	--
13...	.96	--	--	--	.260	.17	140	10	--	--	--	--
20...	--	.02	6.7	7.5	3.20	--	--	--	--	--	--	--
23...	.59	.04	1.7	2.3	1.30	.24	110	10	--	29	5.0	7.9
27...	--	.01	1.1	1.6	1.00	--	--	--	--	--	--	--
SEP												
04...	--	.01	.99	1.2	.430	--	--	--	--	--	--	--
10...	--	.05	.78	.91	.180	--	--	--	--	--	--	--
17...	--	.07	6.0	7.0	4.50	--	--	--	--	--	--	--
24...	--	.07	.10	.64	.510	--	--	--	--	--	--	--
26...	.32	.03	.85	1.2	.640	.23	170	10	6	--	7.4	3.9

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
NOV										
07...	1607	--	--	--	--	210	--	--	--	--
DEC										
04...	1441	8	7	300	100	160	0	0	10	0
JAN										
05...	1111	--	--	--	--	150	--	--	--	--
FEB										
28...	1028	--	--	--	--	130	--	--	--	--
MAR										
30...	1230	10	4	500	0	80	0	0	30	0
APR										
20...	1220	--	--	--	--	90	--	--	--	--
MAY										
24...	1844	--	--	--	--	80	--	--	--	--
JUN										
19...	1319	6	2	800	0	50	0	0	40	0
SEP										
26...	1456	7	6	200	100	170	0	<1	10	10

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV										
07...	--	--	--	--	--	10	--	--	--	--
DEC										
04...	9	0	41	17	20000	40	21	2	640	0
JAN										
05...	--	--	--	--	--	150	--	--	--	--
FEB										
28...	--	--	--	--	--	60	--	--	--	--
MAR										
30...	14	0	60	1	27000	40	--	2	1100	0
APR										
20...	--	--	--	--	--	40	--	--	--	--
MAY										
24...	--	--	--	--	--	10	--	--	--	--
JUN										
19...	22	0	55	2	44000	30	51	0	1400	0
SEP										
26...	5	<3	19	1	11000	10	25	0	490	6

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
NOV									
07...	--	--	4	--	--	--	--	--	--
DEC									
04...	.0	.0	6	1	1	1	0	90	20
JAN									
05...	--	--	7	--	--	--	--	--	--
FEB									
28...	--	--	6	--	--	--	--	--	--
MAR									
30...	.1	.0	--	1	1	0	0	140	10
APR									
20...	--	--	1	--	--	--	--	--	--
MAY									
24...	--	--	0	--	--	--	--	--	--
JUN									
19...	.2	.8	2	1	0	0	0	170	0
SEP									
26...	1.3	.1	6	0	0	0	0	50	<3

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITRO-GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO-GEN,TOT IN BOT-TOM MA-TERIAL (MG/KG AS N) (00603)	PHOS-PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)
MAY									
24...	1844	.0	25	440	2	0	4	0	1

DATE	IRON, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01148)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C) (00693)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C) (00687)	CARBON, INOR-GANIC, TOT IN BOT MAT (G/KG AS C) (00686)
MAY									
24...	2500	0	90	.00	0	12	3.0	1.1	1.9

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
MAY									
24...	1844	6.1	210	3.8	110	3.6	100	.09	1.5

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
07...	1607	3900	12000
DEC			
04...	1441	1500	3800
JAN			
05...	1111	620	940
FEB			
28...	1028	650	1200
MAR			
30...	1230	160	560
APR			
20...	1220	800	820
MAY			
24...	1844	350	1000
JUN			
19...	1319	150	480
JUL			
10...	1551	600	1000
AUG			
23...	1423	780	1000
SEP			
26...	1456	240	280

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1978 TO SEPTEMBER 1979

DATE	NOV 7,78		MAR 30,79		MAY 24,79		JUN 19,79	
TIME	1607		1230		1844		1319	
TOTAL CELLS/ML	10000		1600		0		0	
DIVERSITY: DIVISION	0.7		0.9		0.0		0.0	
.CLASS	0.7		0.9		0.0		0.0	
..ORDER	0.8		1.8		0.0		0.0	
...FAMILY	1.2		2.4		0.0		0.0	
....GENUS	1.9		2.4		0.0		0.0	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	420#	27	--	-	--	-
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	100	7	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	220	2	420#	27	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....COCCONEIS	220	2	210	13	--	-	--	-
...CYMBELLACEAE								
....CYMBELLA	--	-	310#	20	--	-	--	-
....EPITHEMIA	440	4	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	220	2	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....NAVICULA	440	4	100	7	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	440	4	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..HORMOGONALES								
...OSCILLATORIACEAE								
....LYNGBYA	2200#	22	--	-	--	-	--	-
....OSCILLATORIA	5800#	58	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

RIO GRANDE BASIN

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

PHYTOPLANKTON ANALYSES, OCTOBER 1978 TO SEPTEMBER 1979

DATE	JUL 10,79		AUG 23,79		SEP 26,79	
TIME	1551		1423		1456	
TOTAL CELLS/ML	68		260		2800	
DIVERSITY: DIVISION	0.9		0.0		1.0	
.CLASS	0.9		0.0		1.0	
..ORDER	0.9		0.0		2.1	
...FAMILY	2.5		0.0		2.4	
....GENUS	2.5		0.0		2.4	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	5	7	--	-	130	5
...SCENEDESMACEAE						
....SCENEDESMUS	19#	29	--	-	260	9
..TETRASPORALES						
...PALMELLACEAE						
....SPHAEROCYSTIS	--	-	--	-	1000#	36
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	--	-	130	5
..ZYGNEMATALES						
...DESMIDIACEAE						
....COSMARIUM	--	-	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	--	-	260#	100	520#	18
..PENNALES						
...ACHNANTHACEAE						
....COCCONEIS	5	7	--	-	--	-
...CYMBELLACEAE						
....CYMBELLA	--	-	--	-	--	-
....EPITHEMIA	--	-	--	-	--	-
...DIATOMACEAE						
....DIATOMA	5	7	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	5	7	--	-	--	-
...NAVICULACEAE						
....NAVICULA	10	14	--	-	130	5
...NITZSCHIACEAE						
....NITZSCHIA	19#	29	--	-	650#	23
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..HORMOGONALES						
...OSCILLATORIACEAE						
....LYNGBYA	--	-	--	-	--	-
....OSCILLATORIA	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
PERIPHYTON

DATE	TIME	LENGTH OF EXPOSURE (DAYS) (00022)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLOROPHYLL RATIO PERIPHYTON (UNITS) (70950)	SAMPLING METHOD
DEC								
04...	1441	28	.000	.000	.000	.000	--	Polyethylene strip
MAY								
24...	1844	35	4.30	4.17	.000	.000	--	•
SEP								
26...	1456	35	.940	.630	2.36	.180	131	•

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
OCT								
24...	0910	7.4	8.0	56600	1130	76	92	99
NOV								
06...	1030	880	12.0	33200	78900	62	74	93
07...	1607	733	13.0	13000	25700	--	--	--
DEC								
25...	1435	743	3.0	5240	10500	67	76	96
JAN								
03...	1130	890	1.0	1860	4470	15	19	29
18...	0710	659	2.5	16300	29000	65	73	90
31...	1330	654	2.5	1110	1960	20	25	37
FEB								
13...	0930	735	8.0	876	1740	29	35	48
20...	1810	1410	9.0	24200	92100	47	59	77
MAR								
01...	1230	819	10.0	3610	7980	35	40	48
15...	1430	1540	13.0	15100	62800	45	55	67
30...	1230	1800	10.5	4110	20000	11	14	19
APR								
02...	1015	2040	10.0	2040	11200	31	40	47
16...	1000	2400	17.0	2070	13400	19	22	34
20...	1220	2900	15.5	4810	37700	23	26	35
MAY								
01...	1440	5000	18.0	1630	22000	39	51	69
14...	1145	5220	16.0	3670	51700	28	32	46
29...	1030	6100	19.0	8850	146000	28	32	41
JUN								
19...	1345	5370	18.0	3990	57900	26	30	39
JUL								
06...	1000	4910	19.0	1840	24400	19	23	31
10...	1551	4800	25.0	3620	46900	--	15	21
30...	1245	3590	21.5	1040	10100	39	45	54
AUG								
13...	1115	403	19.0	3400	3700	55	62	81
23...	1423	1220	25.0	3780	12500	22	26	33
27...	1145	663	20.0	976	1750	33	40	53
SEP								
11...	1130	86	19.0	133	31	--	--	--
26...	1456	371	22.0	968	970	23	28	36

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)
OCT							
24...	100	--	--	--	--	--	--
NOV							
06...	98	100	--	--	--	--	--
07...	--	--	--	--	93	--	--
DEC							
25...	99	100	--	--	--	--	--
JAN							
03...	51	88	100	--	--	--	--
18...	100	--	--	--	--	--	--
31...	55	79	97	100	--	--	--
FEB							
13...	68	87	100	--	--	--	--
20...	96	100	--	--	--	--	--
MAR							
01...	83	96	100	--	--	--	--
15...	85	94	100	--	--	--	--
30...	43	84	99	100	--	--	--
APR							
02...	85	99	100	--	--	--	--
16...	83	99	100	--	--	--	--
20...	60	91	100	--	--	--	--
MAY							
01...	92	100	--	--	--	--	--
14...	86	99	100	--	--	--	--
29...	70	94	100	--	--	--	--
JUN							
19...	72	93	100	--	--	--	--
JUL							
06...	70	93	100	--	--	--	--
10...	55	89	100	--	--	--	--
30...	80	98	100	--	--	--	--
AUG							
13...	89	96	100	--	--	--	--
23...	68	93	100	--	--	--	--
27...	--	--	--	--	96	100	--
SEP							
11...	--	--	--	--	60	86	100
26...	67	92	100	--	--	--	--

PARTICLE SIZE OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)
OCT									
24...	0910	7.4	56600	1130	4	9	84	99	100
NOV									
06...	1030	880	33200	78900	2	8	72	100	--
JAN									
03...	1130	890	1860	4470	31	79	99	100	--
31...	1330	654	1110	1960	2	6	54	100	--
FEB									
13...	0930	735	876	1740	1	9	92	100	--
MAR									
01...	1230	819	3610	7980	3	10	76	100	--
15...	1430	1540	15100	62800	11	34	96	100	--
APR									
02...	1015	2040	2040	11200	68	93	99	100	--
16...	1000	2400	2070	13400	2	20	92	100	--
MAY									
01...	1440	5000	1630	22000	68	98	100	--	--
14...	1145	5220	3670	51700	60	96	100	--	--
29...	1030	6100	8850	146000	29	92	100	--	--
JUN									
19...	1345	5370	3990	57900	6	38	98	100	--
JUL									
06...	1000	4910	1840	24400	4	34	94	100	--
30...	1245	3590	1040	10100	3	22	78	100	--
AUG									
13...	1115	403	3400	3700	18	91	100	--	--
27...	1145	663	976	1750	60	97	100	--	--
SEP									
11...	1130	86	133	31	1	9	81	98	100

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

TOTAL SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SEDI-MENT DISCH. TOTAL, SUSP.+ BEDLOAD (T/DAY) (80156)	STREAM WIDTH (FT) (00004)	STREAM DEPTH, MEAN (FT) (00064)	STREAM VELOC-ITY, MEAN (FPS) (00055)
OCT									
24...	0910	7.4	8.0	56600	1130	1270	18	.42	1.0
NOV									
06...	1030	880	12.0	33200	78900	81400	107	2.1	3.9
JAN									
31...	1330	654	2.5	1110	1960	3440	98	1.7	3.9
MAR									
01...	1230	819	10.0	3610	7980	9750	100	1.9	4.2
APR									
16...	1000	2400	17.0	2070	13400	16500	190	2.7	4.6
MAY									
29...	1030	6100	19.0	8850	146000	155000	250	4.5	5.4
JUL									
06...	1000	4910	19.0	1840	24400	28300	205	4.4	5.5
30...	1245	3590	21.5	1040	10100	13400	208	3.4	5.0
AUG									
13...	1115	403	19.0	3400	3700	4210	73	1.5	3.6
SEP									
11...	1130	86	19.0	133	31	57	51	1.1	1.6

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	990	592	660	640	597	390	417	334	520	810
2	---	720	677	683	653	622	497	374	411	339	447	810
3	---	717	613	641	642	635	1110	386	410	334	540	810
4	---	710	618	662	676	620	620	436	435	500	540	714
5	---	677	640	1510	661	614	528	433	482	312	540	631
6	---	1020	1070	680	647	972	522	424	370	344	349	611
7	---	715	591	702	660	1020	509	400	366	340	730	475
8	---	667	656	691	668	1000	519	405	456	320	750	508
9	---	699	683	681	669	972	589	418	452	341	680	666
10	---	694	1020	1450	655	959	589	391	376	315	890	626
11	---	682	680	690	---	970	788	398	477	340	900	920
12	---	685	980	657	686	950	531	426	436	338	900	828
13	---	654	1030	657	644	612	529	418	463	338	820	905
14	---	681	1060	664	767	1350	512	393	377	335	730	898
15	---	665	705	655	695	720	508	366	344	340	750	636
16	---	667	696	627	860	630	526	396	345	385	740	604
17	---	663	533	867	865	544	568	434	387	362	740	623
18	---	662	627	845	672	528	554	426	480	490	710	630
19	---	658	588	859	770	580	458	427	349	393	700	636
20	---	668	624	866	777	575	455	427	417	363	620	640
21	---	919	554	828	674	647	457	400	333	360	610	625
22	---	681	545	822	700	612	456	400	---	364	610	803
23	---	675	538	647	860	505	447	466	387	383	600	835
24	1080	671	1050	648	692	584	448	410	407	342	680	835
25	---	---	790	632	742	463	446	393	336	500	690	828
26	---	---	665	658	674	468	499	403	375	362	690	858
27	---	---	698	644	624	495	488	420	574	397	610	869
28	---	---	680	662	678	490	1340	393	341	394	580	852
29	---	---	697	642	---	512	507	396	426	520	600	840
30	---	624	696	666	---	522	502	415	337	353	820	871
31	---	---	695	672	---	512	---	419	---	990	810	---
MEAN	1080	703	732	748	703	688	570	409	406	391	674	740

WTR YR 1979 MEAN 614 MAX 1510 MIN 312

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	7.5	2.5	7.0	10.0	12.0	22.5	24.0	23.5	24.0	19.5
2	---	10.0	2.0	2.0	4.5	10.5	11.0	23.0	23.0	22.0	27.0	19.0
3	---	9.0	2.0	1.0	4.5	13.0	14.0	24.0	24.5	22.0	24.0	20.0
4	---	11.0	2.0	2.0	1.0	13.0	15.0	22.0	18.0	19.0	24.0	19.0
5	---	9.0	1.0	1.5	1.0	12.0	17.5	22.0	19.0	19.0	26.0	18.0
6	---	12.0	2.0	3.0	1.0	11.0	18.0	24.0	24.0	19.0	20.0	19.0
7	---	13.0	1.0	2.0	3.0	13.0	19.0	24.5	18.0	20.0	19.0	19.5
8	---	5.0	2.0	3.0	4.5	12.0	18.5	22.5	19.0	21.0	20.5	17.5
9	---	8.5	4.5	2.5	6.5	13.0	19.0	24.0	25.0	19.0	18.0	17.0
10	---	8.0	2.0	2.5	7.5	11.0	20.0	22.0	26.0	20.0	19.0	16.5
11	---	8.0	4.0	3.0	---	9.0	19.0	21.0	21.0	20.0	19.0	19.0
12	---	8.0	2.0	3.0	5.5	13.0	20.0	22.0	19.0	22.0	18.0	15.0
13	---	10.0	2.0	2.5	9.0	11.0	20.0	24.0	19.0	22.0	19.5	18.0
14	---	9.5	3.0	2.5	8.5	15.0	19.0	16.0	22.5	21.0	19.5	14.0
15	---	10.0	2.0	2.0	9.5	13.0	19.5	20.0	19.0	20.0	18.0	14.0
16	---	9.0	6.0	2.5	9.0	14.0	18.0	25.5	18.0	24.0	19.0	13.0
17	---	8.0	5.0	3.0	9.5	15.0	17.0	24.5	19.5	21.0	20.5	12.0
18	---	5.0	2.5	2.5	10.5	15.0	16.5	21.0	19.0	23.0	20.0	13.5
19	---	5.0	2.5	3.0	10.5	14.0	23.0	27.0	20.0	24.5	19.5	13.0
20	---	8.0	3.0	3.5	9.0	13.5	20.0	27.0	19.0	21.0	19.0	14.5
21	---	8.0	2.5	3.5	9.0	10.0	22.0	27.0	19.0	26.0	19.0	14.0
22	---	9.0	2.5	5.0	7.5	15.0	23.0	25.5	---	24.0	19.0	13.0
23	---	7.0	2.0	4.0	8.0	12.0	22.0	26.0	23.0	24.0	20.0	15.0
24	8.0	5.0	2.5	6.0	9.5	13.0	24.0	25.0	24.5	24.0	21.0	16.0
25	---	---	3.0	6.0	10.0	14.0	22.0	26.5	23.5	23.0	20.0	13.5
26	---	---	3.5	5.0	8.5	11.0	22.0	25.0	22.0	24.5	19.0	15.0
27	---	---	3.0	5.0	10.0	14.0	18.0	19.0	23.0	24.0	19.0	15.5
28	---	---	3.5	4.0	7.0	14.0	24.0	28.0	23.5	21.0	18.0	14.0
29	---	---	3.0	7.0	---	12.0	22.5	19.0	22.0	23.5	19.0	15.0
30	---	6.0	3.0	4.0	---	11.0	19.5	26.5	20.0	21.5	20.5	15.0
31	---	---	3.0	2.5	---	12.0	---	26.0	---	24.0	20.0	---
MEAN	8.0	8.5	3.0	3.5	7.0	12.5	19.0	23.5	21.5	22.0	20.5	16.0

WTR YR 1979 MEAN 14.5 MAX 28.0 MIN 1.0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	0	.00	210	.0	629	1610	669	1370	950	1620	4250	8640
2	0	.00	3650	935	572	1330	592	1310	638	1040	3880	7840
3	0	.00	4220	2050	830	1760	2020	4410	575	801	4140	8980
4	0	.00	3850	2980	1560	3360	800	1190	2010	3270	6990	15400
5	0	.00	6200	10300	1370	2780	1010	1290	5110	8130	16000	34500
6	0	.00	33000	78500	505	984	680	859	8100	15600	37800	61600
7	0	.00	15800	34000	1030	1990	1150	1450	8150	15400	39700	80000
8	0	.00	1840	3540	1020	1880	935	1210	6810	10400	40500	86200
9	0	.00	2300	3990	400	734	549	786	4680	5690	33000	62000
10	0	.00	2470	3610	314	572	560	1100	1400	2230	54200	147000
11	0	.00	2210	3600	250	439	1090	2510	830	1520	42000	165000
12	0	.00	2750	4950	310	480	1400	2750	612	1120	48700	273000
13	0	.00	1850	3880	943	1080	1730	2750	1030	2020	21300	104000
14	0	.00	2610	6980	1090	1210	1210	2030	13100	27200	4850	14800
15	0	.00	2750	6820	966	1680	1070	2140	19300	53200	26500	96600
16	0	.00	2200	5570	419	1240	2270	4240	26200	91300	23100	85400
17	0	.00	2120	4840	850	2480	12200	21000	27000	112000	3750	18000
18	0	.00	2520	5260	1300	3720	16300	29000	21800	97100	4000	20400
19	0	.00	2330	5470	2930	8780	12500	23000	22800	94800	7500	41300
20	0	.00	1850	3990	750	1820	17800	66900	24300	98400	6930	46000
21	0	.00	670	1540	1160	3080	14200	58700	15800	58900	14000	92600
22	0	.00	1180	2660	3050	10900	9500	34100	25500	91600	15400	64700
23	22600	1310	1320	2780	1920	6840	3200	8020	19200	60100	13900	42000
24	55300	1330	825	1660	1190	3370	1070	2540	16500	47700	2980	9250
25	42500	1260	950	1850	2470	5220	673	1220	18300	48100	2580	6900
26	40800	2420	890	1720	803	1440	871	1570	4800	11100	3890	11200
27	26500	930	750	1580	674	1160	675	1190	4060	8910	1600	4710
28	16200	324	2990	10400	589	972	1120	1950	5900	13100	1390	4850
29	6500	17	2050	6200	492	790	671	1250	---	---	4230	20800
30	1260	1.7	1160	3230	555	928	631	1150	---	---	3690	17200
31	500	.20	---	---	578	1030	985	1840	---	---	1980	10100
TOTAL	---	7592.90	---	224885.0	---	75659	---	284825	---	982351	---	1660970

08358400 RIO GRANDE FLOODWAY AT SAN MARCIAL, NM -- Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	1630	7830	2270	31300	6860	109000	1480	16900	261	1620	970	914
2	1770	9030	2970	41100	6500	110000	2390	28800	382	1550	478	452
3	560	2460	3850	54100	6040	99500	3060	37500	289	706	498	414
4	1620	6390	3640	52700	4980	70900	9520	120000	185	407	750	472
5	9510	40800	3950	58100	1950	28900	1600	21000	248	473	1030	545
6	3300	10600	3590	51400	4850	75700	2050	27600	750	1410	961	423
7	2150	7020	3700	52500	4200	66100	1740	23100	18500	33200	1060	343
8	1530	3880	4920	68700	4030	61800	2290	32100	17600	28900	691	250
9	3360	9980	4410	61600	1790	28700	1350	18600	1770	2260	907	316
10	4450	12300	4470	65400	3250	54900	2550	33600	1930	2360	908	260
11	2100	10100	4950	74600	678	10600	1640	20300	2640	3460	177	36
12	3200	19100	4100	62000	875	14200	1000	12000	3180	4050	131	31
13	3050	18900	4240	63400	2110	33600	1210	14200	2970	3340	133	51
14	3850	21600	3570	52900	2270	35600	2740	32400	8250	14100	153	55
15	7700	48000	3700	48400	4650	71700	1330	15500	15100	30700	11100	34300
16	2960	20000	3150	40200	2800	42900	560	6770	14300	53500	20800	41800
17	1540	9480	3600	45700	4840	72800	1700	21700	16500	83600	16400	32800
18	1610	8040	2160	26200	1860	27900	1720	23200	38300	276000	1320	2530
19	2550	13900	3770	43800	4010	60300	1270	18000	25500	138000	3110	6260
20	4340	33900	2640	25700	1620	23400	1880	26500	1380	5920	3200	6150
21	3710	33000	4060	38400	2550	34300	1790	25100	1140	4280	1330	2380
22	2320	22100	5480	53300	4140	54000	507	7080	848	2930	316	580
23	3500	34600	5940	60900	3280	41600	617	8460	1900	6260	360	536
24	3950	40100	6200	68600	1510	18500	791	10500	1050	3200	408	509
25	2860	30400	6130	71200	2300	27600	355	4670	925	2340	356	343
26	1750	19600	5050	61600	1610	19000	688	8880	785	1510	580	581
27	2000	24000	4920	71900	1760	20500	607	7420	835	1500	450	375
28	650	7840	4190	69700	1370	15300	588	6640	1060	1600	442	304
29	2450	31800	6950	115000	2250	25500	592	6380	1050	1560	368	149
30	3220	43600	5870	95900	1590	18200	970	10000	1120	1580	295	72
31	---	---	5180	82500	---	---	990	8450	1050	1270	---	---
TOTAL	---	600350	---	1808800	---	1373000	---	653350	---	713586	---	134231

TOTAL LOAD FOR YEAR: 8519599.90 TONS.

08360500 ELEPHANT BUTTE RESERVOIR AT ELEPHANT BUTTE, NM

LOCATION.--Lat 33°09'15", long 107°11'28", in NW¼ sec.30, T.13 S., R.3 W., Sierra County, Hydrologic Unit 13020211, at dam on Rio Grande, 1 mi (1.6 km) west of Elephant Butte, 4 mi (6 km) northeast of Truth or Consequences (Hot Springs) and at mile 1,383.2 (2,225.6 km).

DRAINAGE AREA.--29,445 mi² (76,260 km²), approximately including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--March 1915 to December 1939 (monthend contents only published in WSP 1312), January 1940 to September 1965 (monthend contents only), October 1965 to current year.

REVISED RECORDS.--WSP 1442: 1954(m). WSP 1632: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 43.4 ft (13.20 m) National Geodetic Vertical Datum of 1929. Oct. 16, 1939, to May 2, 1940, and prior to September 1930, nonrecording gages.

REMARKS.--Reservoir is formed by concrete dam. Storage began Jan. 6, 1915. Dam completed May 13, 1916. Capacity, 2,109,000 acre-ft (2.60 km³) survey of 1974 at gage height 4,407.0 ft (1,343.25 m) crest of spillway. Capacity by original survey was 2,638,900 acre-ft (3.25 km³). No adjustment made for decrease in capacity due to sedimentation between effective dates of capacity tables. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents and are computed from mean daily gage heights. Water is used for power development and irrigation on Rio Grande Project of Bureau of Reclamation. Lake is major recreational area.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 2,303,000 acre-ft (2,84 km³) June 16-18, 1942, gage height, 4,409.19 ft (1,343.921 m); minimum daily contents after initial filling, 9,900 acre-ft (12.2 hm³) Aug. 6, 1954, gage height, 4.258.03 ft (1,297.848 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 848,200 acre-ft (1.05 km³) Aug. 3 gage height, 4,359.98 ft (1,328.922 m); minimum daily contents, 91,900 acre-ft (113 hm³) Oct. 12 gage height, 4,290.42 ft (1,307.720 m).

Capacity table (gage height, in feet, and usable contents, in thousands of acre-feet)

4,270	26.02	4,290	89.90	4,310	216.1	4,330	409.4	4,350	679.0
4,275	37.81	4,295	115.0	4,315	258.5	4,335	469.6	4,355	760.2
4,280	51.76	4,300	144.2	4,320	304.2	4,340	534.3	4,360	848.6
4,285	63.82	4,305	177.7	4,325	354.1	4,345	604.0	4,365	944.1

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	92400	94900	138000	184100	229800	281600	295700	314900	502400	696300	844600	844700
2	92500	95200	140400	185500	231200	283000	295100	319900	510500	701700	846800	844600
3	92400	95500	141000	187000	232000	284500	294800	325000	520800	707100	848200	844000
4	92400	96000	142300	188500	233300	285900	293800	330400	529100	712100	845800	843500
5	92300	96700	144000	189700	234300	287300	292900	335800	534800	717900	842700	842700
6	92300	98300	144900	190800	236100	288300	291300	341000	542900	723600	839800	841600
7	92200	100100	146200	191900	237300	289500	289600	347200	550200	729500	836700	841500
8	92200	101900	146400	192900	238700	290900	287900	353200	557400	735100	834500	841300
9	92200	103500	147300	194300	239900	292000	285700	358800	564100	741600	834000	840400
10	92100	104700	149200	195600	241000	293300	283300	364400	571000	748300	828500	839800
11	92100	106300	150500	197000	242500	295200	281900	369900	578700	754000	824900	839400
12	91900	107700	151500	199000	243700	296300	281900	375800	585900	759400	821300	834900
13	92100	109000	152500	199600	245100	299400	281900	382100	593300	764800	818300	828900
14	92100	110800	153400	200700	246700	300200	282100	388500	600100	770300	816300	827100
15	92200	112500	154500	202300	248500	301100	282200	394500	607300	774100	816900	828700
16	92300	114200	156300	203500	251000	303100	282800	401300	614200	779100	817800	830400
17	92500	115900	158300	205100	253600	305200	283300	406500	620300	783400	819200	831400
18	92600	117400	160400	206700	256900	308500	283400	412400	626700	788400	824000	833100
19	92700	118900	162200	207600	260500	308300	283400	417300	633000	790400	828500	834200
20	92700	120500	163800	209700	263200	308400	283900	422500	639800	791200	832900	836000
21	92700	121900	165400	212600	266100	308500	284800	428000	646200	795400	835300	836700
22	92800	123300	167700	215300	268700	308300	286300	433300	652000	800500	837600	837600
23	93000	124900	170100	217300	271400	307000	288100	438900	657500	806400	839400	838500
24	93100	126300	172200	219200	273200	305400	290100	445400	662800	811500	841600	839300
25	93200	127900	174000	220900	275200	303800	292600	453000	667900	816300	842500	839400
26	93200	129100	175500	222200	277100	301800	295700	459600	672500	820400	843100	839400
27	93100	130500	176900	223400	278600	299700	299000	466100	678200	824900	843300	839400
28	93000	132300	178300	224500	280000	297600	302600	472900	682600	828900	843800	839400
29	93100	134500	179500	226100	---	296900	306900	479900	687200	833600	844600	839400
30	93200	136300	181000	227300	---	296500	310600	487000	691600	838700	844900	839400
31	93400	---	182600	228600	---	295800	---	494700	---	840400	844400	---
MAX	93400	136300	182600	228600	280000	308500	310600	494700	691600	840400	848200	844700
MIN	91900	94900	138000	184100	229800	281600	281900	314900	502400	696300	816300	827100
(†)	4290.75	4298.71	4305.67	4311.51	4317.40	4319.11	4320.67	4336.98	4350.80	4359.55	4359.77	4359.50
(‡)	+1200	+42900	+46300	+46000	+51400	+15800	+14800	+184100	+196900	+148800	+4000	-5000

CAL YR 1978 MAX 288800 MIN 90600 (‡) +1200
WTR YR 1979 MAX 848200 MIN 91900 (‡) +747200

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM
(National stream-quality accounting network station)

LOCATION.--Lat 33°08'54", long 107°12'22", Sierra County, Hydrologic Unit 13030101, in Pedro Armendaris Grant, on left bank 1.0 mi (1.6 km) downstream from dam, 1.5 mi (2.4 km) upstream from Cuchillo Negro River, and at mile 1,382.2 (2,224.0 km).

DRAINAGE AREA.--29,450 mi² (76,280 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1915 to current year. Monthly or annual discharge only for some periods, published in WSP 1732. Figures of daily discharge, published in WSP 458 for October to December 1916, are unreliable.

REVISED RECORDS.--WSP 1562: 1920. WSP 1632: Drainage area. WSP 1732: 1917, 1920. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4,242.09 ft (1,292.989 m) National Geodetic Vertical Datum of 1929. See WSP 1732 for history of changes prior to Apr. 24, 1942.

REMARKS.--Water-discharge records good except those for June, which are fair. Flow regulated by Elephant Butte Reservoir (station 08360500). Diversion for irrigation of about 800,000 acres (3200 km²) above station.

AVERAGE DISCHARGE.--64 years, 970 ft³/s (27.47 m³/s), 702,800 acre-ft/yr (867 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 8,220 ft³/s (233 m³/s) May 22, 1942; no flow at times prior to 1929.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,130 ft³/s (60.3 m³/s) May 31; no flow Mar. 2-4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	14	10	11	8.6	.07	1940	1920	1890	1920	645	22
2	4.5	9.7	12	11	8.4	.00	1930	1940	1500	1920	630	22
3	4.2	8.5	9.5	11	8.2	.00	1930	1960	1950	1910	632	21
4	4.7	6.2	9.6	11	7.9	.00	1920	1900	1920	1880	1700	23
5	4.9	5.6	11	11	7.9	5.6	1920	1910	1930	1870	1750	612
6	5.1	5.6	12	12	7.6	15	1930	1890	1910	1870	1750	26
7	4.9	5.6	9.7	12	9.7	15	1920	1720	1920	1820	1780	22
8	4.2	5.6	9.6	11	14	15	1940	1810	1910	1790	1790	17
9	4.2	6.2	9.3	8.0	13	15	1950	1840	1900	1790	1790	16
10	4.0	6.2	8.8	7.6	13	14	1950	1650	1890	1770	1800	16
11	3.6	11	9.1	7.3	13	13	1960	1860	1900	1760	1800	15
12	3.4	10	9.1	7.9	13	588	1970	1940	1890	1690	1800	1920
13	2.9	7.7	9.1	7.5	13	633	1950	1940	1900	1700	1800	2040
14	3.6	6.9	8.9	7.6	13	669	1960	1910	1900	1700	1360	1730
15	3.6	11	9.1	7.1	13	634	1970	1880	1920	1690	952	138
16	3.3	16	9.1	4.9	9.1	91	1960	1910	1930	1690	613	77
17	2.7	15	9.1	4.9	.19	93	1960	1960	1930	1690	469	61
18	2.4	14	10	5.7	.15	85	1950	1950	1940	1670	484	61
19	2.4	14	11	5.0	.15	1770	1800	1920	1930	1650	25	62
20	2.6	14	18	4.3	.19	1900	1930	1920	1940	1680	21	57
21	3.4	14	12	4.2	.27	1890	1940	1900	1950	1710	20	31
22	2.5	14	16	4.8	.19	1910	1940	1900	1960	1710	17	28
23	2.4	15	13	4.2	.15	1900	1930	1880	1980	1720	13	27
24	5.8	15	13	4.2	.11	1920	1940	1840	1950	1720	13	25
25	6.8	15	13	4.9	.11	1970	1950	1920	1960	1720	12	23
26	6.7	14	12	5.5	.11	1960	1950	2020	1950	1710	13	22
27	92	12	12	4.3	.15	1970	1940	2030	1940	1700	13	21
28	6.2	12	12	4.6	.09	2020	1940	2060	1940	1700	13	19
29	5.6	11	12	5.7	---	1960	1960	2090	1920	1710	14	18
30	4.6	10	12	4.2	---	1940	1940	2120	1920	1710	14	18
31	2.9	---	12	4.9	---	1920	---	2130	---	1710	15	---
TOTAL	214.4	324.8	343.0	219.3	174.26	27915.67	58170	59620	57370	54280	23748	7190
MEAN	6.92	10.8	11.1	7.07	6.22	901	1939	1923	1912	1751	766	240
MAX	92	16	18	12	14	2020	1970	2130	1980	1920	1800	2040
MIN	2.4	5.6	8.8	4.2	.09	.00	1800	1650	1500	1650	12	15
AC-FT	425	644	680	435	346	55370	115400	118300	113800	107700	47100	14260

CAL YR 1978 TOTAL 189479.00 MEAN 519 MAX 2020 MIN .04 AC-FT 375800
WTR YR 1979 TOTAL 289569.43 MEAN 793 MAX 2130 MIN .00 AC-FT 574400

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
OCT										
02...	1100	4.6	1220	8.1	--	20.0	20	--	--	--
09...	0900	4.6	694	7.8	--	19.0	19	--	--	--
10...	1910	4.0	740	8.6	25.5	23.0	32	9.8	--	--
15...	1400	4.0	1330	8.0	--	22.0	30	--	--	--
23...	0700	2.4	717	8.0	--	16.0	9.0	--	--	--
30...	1450	2.9	697	8.5	--	9.0	37	--	--	--
NOV										
01...	1411	14	711	8.2	19.0	17.0	10	9.3	--	--
05...	1000	5.6	975	8.0	--	17.0	26	--	--	--
14...	1055	6.8	745	7.7	--	13.0	15	--	--	--
19...	0900	14	716	8.2	--	7.0	9.8	--	--	--
26...	1200	14	785	7.8	--	9.0	8.8	--	--	--
DEC										
03...	1200	9.1	774	8.0	--	9.0	16	--	--	--
04...	1919	9.7	750	8.8	4.0	10.5	15	15.4	--	--
10...	0700	9.1	786	7.9	--	4.5	13	--	--	--
17...	1210	9.1	773	8.0	--	3.0	5.3	--	--	--
25...	1510	13	698	8.6	--	4.5	3.8	--	--	--
JAN										
02...	1000	11	--	--	--	3.0	300	--	--	--
07...	0845	12	--	--	--	4.0	2.6	--	--	--
09...	1409	7.9	760	8.8	9.0	9.0	3.3	.20.0	--	--
15...	1640	5.6	--	--	--	2.5	4.2	--	--	--
21...	0900	4.6	--	--	--	3.5	4.5	--	--	--
28...	1400	4.6	--	--	--	4.0	1.2	--	--	--
FEB										
04...	1400	7.9	--	--	--	6.0	1.0	--	--	--
11...	1500	13	--	--	--	7.0	1.7	--	--	--
13...	1551	13	760	9.0	23.0	14.0	14	15.5	--	--
18...	1045	.17	--	--	--	10.0	3.0	--	--	--
28...	1850	.09	--	--	--	11.0	3.3	--	--	--
MAR										
04...	1600	.04	--	--	--	9.0	1.4	--	--	--
11...	1300	13	--	--	--	10.0	2.0	--	--	--
18...	1100	91	--	--	--	11.0	2.2	--	--	--
20...	1551	1880	796	8.3	21.0	9.0	3.6	9.2	--	--
26...	1850	1980	--	--	--	9.0	3.0	--	--	--
APR										
01...	1215	1920	--	--	--	10.0	3.5	--	--	--
08...	1215	1940	--	--	--	14.0	4.0	--	--	--
15...	0915	1970	--	--	--	11.0	5.3	--	--	--
22...	1500	1940	--	--	--	16.0	1.0	--	--	--
23...	1859	1940	800	8.3	24.5	11.5	9.9	7.8	200	54
30...	1130	1920	--	--	--	14.5	2.0	--	--	--
MAY										
06...	1545	1890	--	--	--	17.0	4.0	--	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
MAY											
13...	1545	1950	--	--	--	20.0	7.1	--	--	--	--
20...	1300	1900	--	--	--	20.0	13	--	--	--	--
24...	1444	1830	644	8.4	20.5	15.0	9.0	6.3	180	54	57
30...	1315	2130	--	--	--	24.0	14	--	--	--	--
JUN											
03...	1635	1950	--	--	--	24.0	9.9	--	--	--	--
10...	1400	1890	--	--	--	19.0	12	--	--	--	--
15...	1051	1920	540	7.8	29.5	16.5	15	4.9	160	41	49
19...	1200	1920	--	--	--	18.0	16	--	--	--	--
24...	1315	1940	--	--	--	20.5	11	--	--	--	--
JUL											
02...	0710	1910	--	--	--	19.5	68	--	--	--	--
09...	0715	1790	--	--	--	19.0	100	--	--	--	--
11...	1017	1760	382	7.7	33.5	19.0	17	4.7	150	36	44
16...	0715	1680	--	--	--	20.0	96	--	--	--	--
AUG											
24...	1001	12	457	7.4	25.0	19.5	18	4.3	140	29	43
SEP											
27...	1027	22	464	6.8	23.0	18.0	22	2.2	140	30	43

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)
OCT										
02...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
NOV										
01...	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
DEC										
03...	--	--	--	--	--	--	--	--	--	--
04...	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
JAN										
02...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
FEB										
04...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
MAR										
04...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
APR										
01...	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
23...	62	12	70	2.1	5.1	150	150	43	.6	17
30...	--	--	--	--	--	--	--	--	--	--
MAY										
06...	--	--	--	--	--	--	--	--	--	--

DATE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
MAY											
13...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
24...	10	60	1.9	5.3	130	140	35	.6	9.8	394	396
30...	--	--	--	--	--	--	--	--	--	--	--
JUN											
03...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
15...	9.3	46	1.6	4.2	120	110	25	.4	12	327	328
19...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
JUL											
02...	--	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--	--
11...	8.8	41	1.5	4.0	110	97	19	.4	17	294	297
16...	--	--	--	--	--	--	--	--	--	--	--
AUG											
24...	7.7	36	1.3	4.0	110	82	19	.4	18	285	276
SEP											
27...	7.8	36	1.3	4.2	110	79	18	.4	20	282	275

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
OCT										
02...	--	--	.01	--	.01	.81	.83	.110	--	--
09...	--	--	.05	--	.03	.78	.86	.110	--	--
10...	--	--	.05	.06	.07	1.3	1.5	.120	.05	--
15...	--	--	.02	--	.02	.77	.81	.160	--	--
23...	--	--	.04	--	.01	.57	.62	.060	--	--
30...	--	--	.05	--	.02	.64	.71	.070	--	--
NOV										
01...	--	--	.12	.17	.01	1.4	1.5	.110	.01	--
05...	--	--	.08	--	.05	.46	.59	.080	--	--
14...	--	--	.08	--	.01	1.1	1.2	.060	--	--
19...	--	--	.16	--	.02	.36	.54	.070	--	--
26...	--	--	.21	--	.02	.43	.66	.090	--	--
DEC										
03...	--	--	.09	--	.01	.67	.77	.050	--	--
04...	--	--	.08	.12	.01	.45	.54	.060	.04	--
10...	--	--	.09	--	.01	.50	.60	.050	--	--
17...	--	--	.08	--	.05	.64	.77	.020	--	--
25...	--	--	.04	--	.01	.43	.48	.050	--	--
JAN										
02...	--	--	.68	--	.06	1.3	2.1	1.30	--	--
07...	--	--	.07	--	.01	.35	.43	.050	--	--
09...	--	--	.08	.05	.02	.41	.51	.060	.00	--
15...	--	--	.05	--	.00	.37	.42	.050	--	--
21...	--	--	.01	--	.02	.49	.52	.040	--	--
28...	--	--	.05	--	.00	.64	.69	.040	--	--
FEB										
04...	--	--	.03	--	.06	.47	.56	.060	--	--
11...	--	--	.05	--	.05	.39	.49	.060	--	--
13...	--	--	.05	.07	.06	.17	.28	.100	.06	--
18...	--	--	.04	--	.04	.48	.56	.060	--	--
28...	--	--	.03	--	.17	1.0	1.2	.140	--	--
MAR										
04...	--	--	.06	--	.17	.78	1.0	.120	--	--
11...	--	--	.01	--	.04	.39	.44	.040	--	--
18...	--	--	.03	--	.05	.46	.54	.080	--	--
20...	--	--	.01	.01	.10	.49	.60	.100	.06	--
26...	--	--	.01	--	.07	.83	.91	.120	--	--
APR										
01...	--	--	.03	--	.07	.46	.56	.130	--	--
08...	--	--	.03	--	.13	.38	.54	.160	--	--
15...	--	--	.05	--	.20	.29	.54	.160	--	--
22...	--	--	.09	--	.12	.45	.66	.170	--	--
23...	474	450	.07	--	.18	.33	.58	.180	--	4.7
30...	--	--	.05	--	.09	.34	.48	.160	--	--
MAY										
06...	--	--	.05	--	.13	.39	.57	.180	--	--

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
MAY											
13...	.03	--	.10	.35	.48	.140	--	--	--	--	--
20...	.10	--	.09	.34	.53	.150	--	--	--	--	--
24...	.10	--	.12	.55	.77	.130	10	10	--	4.8	.7
30...	.16	--	.05	.60	.81	.110	--	--	--	--	--
JUN											
03...	.21	--	.03	.57	.81	.050	--	--	--	--	--
10...	.22	--	.04	.24	.50	.140	--	--	--	--	--
15...	.28	--	.02	.21	.51	.130	--	--	6.3	--	--
19...	.28	--	.03	.40	.71	.130	--	--	--	--	--
24...	.26	--	.01	.41	.68	.120	--	--	--	--	--
JUL											
02...	.09	--	.04	.62	.75	.210	--	--	--	--	--
09...	.09	--	.06	.56	.71	.190	--	--	--	--	--
11...	.33	--	.01	.31	.65	.080	--	--	4.5	--	--
16...	.17	--	.15	.64	.96	.180	--	--	--	--	--
AUG											
24...	.08	--	.20	.33	.61	.310	<10	170	--	5.6	.4
SEP											
27...	.05	.02	.40	.46	.91	.410	--	--	5.7	--	--

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
MAY 24...	1444	9	6	0	100	0	1	0	0
AUG 24...	1001	6	5	0	50	0	2	10	0

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
MAY 24...	0	0	4	0	290	10	4	0	40
AUG 24...	0	<3	1	1	800	<10	1	0	440

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
MAY 24...	10	.1	.1	0	0	0	0	10	10
AUG 24...	170	.1	.0	0	0	0	0	0	<3

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
APR 23...	1859	0	4
MAY 24...	1444	2	15
JUN 15...	1051	17	6
JUL 11...	1017	12	9
AUG 24...	1001	73	33
SEP 27...	1027	77	41

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

IDENTIFICATION OF PHYTOPLANKTON

DATE	MAY 24,79	JUN 15,79	JUL 11,79	AUG 24,79	SEP 27,79
TIME	1444	1051	1017	1001	1027
TOTAL CELLS/ML	570	340	480	940	1800
DIVERSITY: DIVISION	1.3	0.0	0.6	1.1	0.5
.CLASS	1.5	0.0	0.6	1.1	0.5
..ORDER	1.8	0.0	1.5	1.2	0.5
...FAMILY	2.0	0.0	2.5	1.3	0.5
....GENUS	2.6	0.0	2.7	1.3	0.5

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....OOCYSTIS	130#	23	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	13	1	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	26	5	--	-	10	2	260#	27	--	-
..TETRASPORALES										
...PALMELLACEAE										
....SPHAEROCYSTIS	--	-	--	-	40	8	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	26	5	--	-	--	-	--	-	13	1
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	130#	23	340#	100	210#	44	--	-	--	-
....MELOSIRA	180#	32	--	-	20	4	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	5	1	--	-	--	-
....COCCONEIS	--	-	--	-	25	5	--	-	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	15	3	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	15	3	--	-	--	-
...FRAGILARIACEAE										
....SYNEDRA	--	-	--	-	15	3	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	13	2	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	--	-	--	-	55	11	--	-	--	-
...NITZSCHIACEAE										
....NITZSCHIA	--	-	--	-	66	14	13	1	170	9
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...MALLOMONADACEAE										
....MALLOMONAS	26	5	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOCHRYSIDACEAE										
....CHROOMONAS	26	5	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	26	3	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	13	1	--	-
..HORMOGONALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	620#	66	1600#	90
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	13	2	--	-	--	-	--	-	--	-
...PETALOMONADACEAE										
....CALYCOMONAS	--	-	--	-	5	1	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08361000 RIO GRANDE BELOW ELEPHANT BUTTE DAM, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PERIPHYTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS) (00022)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	SAMPLING METHOD
JUN								
15...	1051	22	.470	.390	1.82	1.16	44.0	Polyethlene strip
JUL								
11...	1017	26	.710	.550	18.5	3.62	8.65	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
APR						
23...	1859	1940	11.5	8	42	83
MAY						
24...	1444	1830	15.0	11	54	96
JUN						
15...	1051	1920	16.5	16	83	91
JUL						
11...	1017	1760	19.0	21	100	97
AUG						
24...	1001	12	19.5	22	.71	98
SEP						
27...	1027	22	18.0	76	4.5	96

08362000 CABALLO RESERVOIR NEAR ARREY, NM

LOCATION.--Lat 32°53'47", long 107°17'30", in SE¼SW¼ sec.19, T.16 S., R.4 W., Sierra County, Hydrologic Unit 13030101, in control tower of Caballo Dam on Rio Grande, 0.5 mi (0.8 km) downstream from mouth of Apache Canyon, 0.9 mi (1.4 km) upstream from Bojarquez Bridge, 2 mi (3 km) upstream from Percha diversion dam, 3.5 mi (5.6 km) northeast of Arrey, 5.2 mi (8.4 km) south of Caballo, and at mile 1,356.6 (2,182.8 km).

DRAINAGE AREA.--30,700 mi² (79,510 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--February 1938 to September 1965 (monthend contents only), October 1965 to current year.

REVISED RECORDS.--WSP 978: 1942. WSP 1632: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 43.3 ft (13.20 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Reservoir is formed by earthfill dam, completed Sept. 19, 1938. Storage began Feb. 8, 1938. Capacity by 1958 survey, 344,000 acre-ft (424 hm³) between gage heights 4,104 ft (1,250.9 m) bottom of tunnel entrance of gates and 4,182 ft (1,274.7 m) gage height above which spillway gates operate automatically. No dead storage. Storage held for flood control, 100,000 acre-ft (123 hm³). Figures given herein represent usable contents and are computed from mean daily gage heights. Water released from Elephant Butte Reservoir for power development is stored in Caballo Reservoir and released for irrigation on Rio Grande project for Bureau of Reclamation.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 347,000 acre-ft (428 hm³) Mar. 4, 1942, gage height, 4,182.06 ft (1,274.692 m); minimum daily contents, 118 acre-ft (0.145 hm³), Oct. 14, 1938, gage height, 4,108.1 ft (1,252.15 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 128,500 acre-ft (158 hm³) June 12, gage height 4,158.11 ft (1,267.392 m); minimum daily contents, 14,880 acre-ft (18.3 hm³) Sept. 19, gage height, 4,130.09 ft (1,258.851 m).

Capacity table (gage height, in feet, and usable contents, in thousands of acre-feet)

4,122	3.41	4,130	14.70	4,138	34.19	4,146	62.50	4,154	102.2
4,124	5.47	4,132	18.88	4,140	40.31	4,148	71.28	4,156	114.5
4,126	8.00	4,134	23.52	4,142	47.03	4,150	80.76	4,158	127.7
4,128	11.06	4,136	28.61	4,144	54.42	4,152	91.03	4,160	141.7

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	15980	18100	27490	42150	44970	48730	27330	74260	114300	112400	93600	61840
2	16000	18280	27620	42080	44970	48800	27930	75790	115500	110600	90240	58050
3	16080	18410	27800	42150	45110	48980	28460	77380	116900	110000	87410	54110
4	16100	18450	27780	42180	45210	49050	29100	78350	118400	109400	86420	49740
5	16160	18490	27780	42280	45420	49090	29640	79800	120300	108500	86150	45970
6	16180	18560	27860	42350	45450	49160	30600	80860	122300	108200	85890	41820
7	16240	18620	28040	42480	45550	49200	31850	81620	124200	108100	85690	36490
8	16280	18670	28090	42540	45590	47860	33110	82370	126400	108000	85380	31090
9	16320	18690	28090	42610	45690	45690	34190	83370	126800	108000	84880	26500
10	16360	18730	28120	42740	45760	43560	35600	84180	127400	107200	84080	22260
11	16380	18950	28190	42740	45860	41530	36790	84880	128000	105800	83170	18360
12	16440	19150	28270	42770	46000	39900	38220	86420	128500	104300	82220	16520
13	16440	19340	28350	42940	46100	38370	39720	87460	128100	102300	81370	17420
14	16480	19490	28380	42970	46240	36850	41430	89040	127600	101700	82020	19360
15	16520	19610	28450	42970	46480	35450	43200	90400	127200	100200	82270	19420
16	16540	19650	28560	43100	46860	32560	45310	91520	126800	98790	82520	18360
17	16540	19720	28610	43260	47140	28690	47500	92560	126200	97650	84130	17290
18	16560	19790	28800	43590	47460	25040	49520	93710	125600	96680	86360	15920
19	16630	19830	34850	44000	47720	22950	51240	95080	125400	96060	88670	14880
20	16670	19900	38150	44070	47860	22910	53170	96500	124300	95960	88560	15270
21	16730	19970	39400	44110	48040	23070	55210	97990	123700	96620	87940	15450
22	16920	20020	40120	44350	48220	23290	57060	99190	122800	97650	86890	15770
23	17050	20080	40900	44380	48400	23410	58950	100200	121600	98790	85740	16040
24	17120	20290	41160	44420	48550	23700	61060	101200	120400	99310	84480	16260
25	17160	24420	41200	44520	48580	23970	62890	102200	119500	99190	83120	16460
26	17180	26060	41230	44620	48620	24220	64660	104200	118400	98790	81160	16670
27	17200	26790	41300	44660	48650	24570	66550	105900	117300	98450	78200	16880
28	17370	27070	41360	44660	48690	25010	68550	107600	116200	98450	75420	17090
29	17460	27280	41530	44760	---	25440	70480	109500	114900	98110	72450	17330
30	17590	27390	41660	44900	---	26160	72400	111200	113900	97530	69450	17520
31	17760	---	41920	44900	---	26760	---	112600	---	96500	65950	---
MAX	17760	27390	41920	44900	48690	49200	72400	112600	128500	112400	93600	61840
MIN	15980	18100	27490	42080	44970	22910	27330	74260	113900	95960	65950	14880
(†)	4131.48	4135.53	4140.49	4141.38	4142.46	4135.29	4148.24	4155.69	4155.90	4153.00	4146.80	4131.37
(‡)	+1780	+9630	+14530	+2980	+3790	-21930	+45640	+40200	+1300	-17400	-30550	-48430

CAL YR 1978 MAX 58290 MIN 14510 (‡) +24700
WTR YR 1979 MAX 128500 MIN 14880 (‡) +1540

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.

08362500 RIO GRANDE BELOW CABALLO DAM, NM

LOCATION.--Lat 32°53'05", long 107°17'31", in NE¼SW¼ sec.30, T.16 S., R.4 W., Sierra County, Hydrologic Unit 13030102, on left bank 2,000 ft (600 m) upstream from Interstate Highway 25, 4,200 ft (1,300 m) downstream from Caballo Dam, 1.2 mi (1.9 km) downstream from Apache Canyon, 1.3 mi (2.1 km) upstream from Percha diversion dam, 3 mi (5 km) northeast of Arrey, 5 mi (8 km) south of Caballo, and at mile 1,355.6 (2,181.2 km).

DRAINAGE AREA.--30,700 mi^2 (79,510 km^2), approximately, including 2,940 mi^2 (7,610 km^2) in closed basin in San Luis Valley, CO.

PERIOD OF RECORD.--January 1938 to current year.

GAGE.--Water-stage recorder. Datum of gage is 4,140.9 ft (1,262.15 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 7, 1938, at datum 7.0 ft (2.13 m) higher, Oct. 7-12, 1938, at datum 6.0 ft (1.83 m) higher, and Oct. 13, 1938, to Dec. 31, 1945, at datum 5.0 ft (1.52 m) higher than present datum.

REMARKS.--Records good. Flow regulated by Caballo Reservoir (station 08362000) capacity, 344,000 acre-ft (424 hm^3), 1958 survey and Elephant Butte Reservoir (station 08360500) capacity, 2,109,000 acre-ft (2.60 km^3), 1974 survey. Diversions for irrigation of about 800,000 acres (3,200 km^2) above station. Figures of daily discharge do not include Bonita ditch which diverts from Caballo Dam and bypasses station for irrigation below. See monthly table below for record of ditch.

COOPERATION.--Records furnished by Bureau of Reclamation.

AVERAGE DISCHARGE.--41 years, 846 ft^3/s (23.96 m^3/s), 612,900 acre-ft/yr (756 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 7,650 ft^3/s (217 m^3/s) May 20, 1942; minimum daily, 0.1 ft^3/s (0.003 m^3/s) Oct. 31 to Nov. 14, 1954, Nov. 7 to Dec. 31, 1955, Feb. 15-29, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 2,420 ft^3/s (68.5 m^3/s) Aug. 2; minimum daily, 0.80 ft^3/s (0.023 m^3/s) Oct. 27, Jan. 8-13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.4	1.4	1.0	1.1	1.5	1.5	1620	889	1220	2200	2400	1790
2	1.4	1.1	1.0	1.0	1.5	1.5	1610	981	1290	2200	2420	1760
3	1.2	1.1	1.0	1.0	1.6	1.5	1600	972	1250	2140	2090	1740
4	1.2	1.1	1.0	1.0	1.7	1.5	1620	1050	1000	2070	1780	2030
5	1.2	1.2	1.0	1.0	1.7	1.5	1640	1140	940	2040	1780	2180
6	1.2	1.2	1.0	1.0	1.8	1.5	1420	1150	896	1920	1750	2180
7	1.5	1.1	1.2	.90	1.8	1.5	1320	1150	905	1800	1850	2410
8	1.7	1.1	1.2	.80	1.9	519	1320	1210	1010	1800	1920	2310
9	1.8	1.1	1.2	.80	2.0	1060	1350	1220	1290	1790	1920	2150
10	1.9	1.2	1.2	.80	2.0	1050	1340	1190	1400	2050	2050	2080
11	1.6	1.5	1.1	.80	2.1	1050	1330	1120	1420	2380	2160	1700
12	1.3	1.5	1.1	.80	2.1	1050	1320	1060	1670	2360	2160	1590
13	1.2	1.5	1.1	.80	2.2	1160	1180	1060	1930	2360	1780	1500
14	1.2	1.4	1.1	.90	2.1	1280	1040	1100	1940	2360	1130	1390
15	1.4	1.2	1.1	.90	2.1	1260	1050	1220	1940	2370	651	1110
16	1.4	1.1	1.1	.90	2.0	1570	1050	1280	1940	2300	326	712
17	1.4	1.0	1.1	.90	2.0	1870	996	1280	1940	2310	315	681
18	1.1	1.0	1.1	.90	1.9	1870	952	1160	1770	2210	211	732
19	1.1	.90	1.2	.90	1.9	1870	944	1060	1960	1880	332	320
20	1.0	.90	1.2	.90	1.8	1850	962	1070	2100	1580	344	4.3
21	1.0	.90	1.1	.90	1.8	1830	971	1070	2100	1340	376	3.0
22	.90	.90	1.1	.90	1.7	1800	980	1100	2150	1160	504	2.8
23	.90	.90	1.1	1.0	1.7	1800	980	1250	2200	1160	495	2.8
24	.90	1.0	1.1	1.0	1.6	1770	980	1250	2200	1390	544	2.6
25	.90	1.2	1.1	1.1	1.6	1690	980	1100	2200	1710	563	2.4
26	.90	1.1	1.1	1.1	1.5	1590	998	975	2190	1720	837	2.2
27	.80	1.0	1.1	1.2	1.5	1580	909	975	2280	1730	1110	2.2
28	.90	1.0	1.1	1.3	1.5	1580	801	984	2280	1690	1330	2.2
29	1.0	1.0	1.1	1.3	---	1570	801	1030	2270	1700	1400	2.2
30	1.0	1.0	1.2	1.4	---	1590	801	1140	2230	1700	1390	2.2
31	1.0	---	1.2	1.4	---	1620	---	1140	---	2060	1670	---
TOTAL	37.40	33.60	34.3	30.70	50.6	35889.5	34865	34376	51911	59480	39588	30393.9
MEAN	1.21	1.12	1.11	.99	1.81	1158	1162	1109	1730	1919	1277	1013
MAX	1.9	1.5	1.2	1.4	2.2	1870	1640	1280	2280	2380	2420	2410
MIN	.80	.90	1.0	.80	1.5	1.5	801	889	896	1160	211	2.2
AC-FT	74	67	68	61	100	71190	69150	68180	103000	118000	78520	60290
(†)	0	0	0	0	0	84	50	0	46	77	40	23

CAL YR 1978 TOTAL 179579.70 MEAN 492 MAX 1990 MIN .80 AC-FT 356200
WTR YR 1979 TOTAL 286690.00 MEAN 785 MAX 2420 MIN .80 AC-FT 568600

† DIVERSION, IN ACRE-FT, BY BONITA DITH. BONITA DITCH DIVERTS DIRECTLY FROM CABALLO DAM AND THIS DIVERSION IS NOT INCLUDED IN THE RIVER RECORDS.

08363500 RIO GRANDE AT LEASBURG DAM, NEAR LAS CRUCES, NM

LOCATION.--Lat 32°28'36", long 106°55'03", in SW¼SW¼ sec. 14, T.21 S., R.01 W., Dona Ana County, Hydrologic Unit 13030102, 1.2 mi (1.9 km) upstream from USBR gaging station which is 2.0 mi (3.2 km) downstream from Leasburg Dam, and 1.8 mi (2.9 km) southeast of Radium Springs.

PERIOD OF RECORD.--Water years 1975 to current year.

COOPERATION.--Data furnished by the New Mexico Environmental Improvement Agency.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)
APR					
23...	0945	795	8.1	18.5	8.0
MAY					
22...	1030	798	8.3	18.0	8.5

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLIFORM, FECAL, 0.45 UM-MF (COLS./ 100 ML) (31616)
APR		
23...	0945	17
MAY		
22...	1030	36

08364000 RIO GRANDE AT EL PASO, TX
(National stream-quality accounting network)

LOCATION.--Lat 31°48'10", long 106°32'25", El Paso County, Hydrologic Unit 13030102, on downstream side of first pier from left abutment of Courchesne Bridge at El Paso, 1.7 mi (2.7 km) upstream from American Dam, 5.6 mi (9.0 km) upstream from Santa Fe Street-Juarez Avenue Bridge between El Paso and Cd. Juarez, Chihuahua, and at mile 1,249.9 (2,011.1 km).

DRAINAGE AREA.--32,207 mi² (83,415 km²), approximately, including 2,940 mi² (7,610 km²) in closed basin in San Luis Valley, CO.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1889 to current year. October 1960 to September 1965 in bulletins of International Boundary and Water Commission. Monthly discharges only for some periods published in WSP 1312 or 1732.

GAGE.--Water-stage recorder. Datum of gage is 3,722.30 ft (1,134.557 m) National Geodetic Vertical Datum of 1929. See WSP 1312 or 1732 for history of changes prior to Aug. 4, 1938.

REMARKS.--Daily discharges were computed by adding discharges of American Canal at El Paso and Rio Grande below American Dam at El Paso. Reservoirs, diversions, and drainage returns modify the river flow at this station.

COOPERATION.--Records furnished by International Boundary and Water Commission, United States and Mexico.

AVERAGE DISCHARGE.--42 years (water years 1938-79), 502 ft³/s (14.22 m³/s), 363,700 acre-ft/yr (448 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,000 ft³/s (680 m³/s) June 12, 1905; no flow at times. Maximum discharge since construction of Elephant Butte Dam in 1915, 13,500 ft³/s (382 m³/s) Sept. 3, 1925.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,620 ft³/s (159 m³/s) July 20, gage height, 6.26 ft (1.908 m); minimum 12.0 ft³/s (0.34 m³/s) Feb. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	159	45.7	32.9	16.6	19.7	18.1	655	354	348	922	829	623
2	161	38.1	26.8	24.6	21.2	22.6	620	352	464	692	809	697
3	46.3	208	23.9	17.4	21.5	27.9	632	336	526	1050	982	985
4	42.4	167	21.0	23.8	21.2	28.1	641	333	599	1120	1040	1040
5	42.8	94.1	19.9	20.9	20.1	28.3	583	326	1200	1040	945	1020
6	39.1	81.5	20.1	28.1	21.0	20.6	529	342	601	941	727	1050
7	32.8	69.8	23.0	28.5	20.0	16.7	547	462	506	862	686	857
8	27.0	64.5	26.6	22.8	19.0	20.1	513	473	476	729	688	919
9	41.8	65.3	19.0	21.1	16.2	20.1	412	502	401	639	646	1050
10	36.8	64.4	17.4	25.2	16.4	19.5	425	457	369	782	565	1010
11	32.0	63.5	23.1	26.1	16.1	182	419	417	546	759	543	1080
12	30.3	60.5	26.6	23.0	14.7	630	480	403	783	816	605	1030
13	33.2	57.7	24.8	22.8	13.2	735	446	419	758	982	1040	817
14	32.2	68.3	23.1	20.6	12.9	721	445	451	878	1020	2060	710
15	31.2	95.7	22.9	22.5	12.6	837	467	472	1040	1090	2540	684
16	28.6	66.9	22.7	21.3	27.7	854	471	478	1060	1150	2120	892
17	25.5	54.0	22.5	21.3	23.9	818	410	508	1100	1190	1370	1160
18	22.3	45.2	24.4	35.4	24.2	901	411	505	1390	1140	1140	734
19	19.9	39.9	25.0	31.6	19.5	871	408	516	1470	1060	909	450
20	17.5	35.4	26.2	23.2	13.9	820	230	538	1150	1790	807	374
21	50.6	34.2	24.5	21.5	17.7	831	265	547	1060	1290	684	374
22	68.4	32.7	24.3	22.0	18.0	883	265	535	886	1270	656	428
23	133	30.5	27.4	20.6	17.0	828	315	505	921	1270	650	360
24	76.2	28.8	46.0	19.7	17.3	865	352	421	942	1080	623	493
25	44.6	28.4	46.5	30.7	17.6	766	387	407	1080	827	655	421
26	38.6	27.8	42.2	29.7	19.6	754	387	445	1260	704	647	310
27	40.0	26.1	28.2	27.4	19.9	777	413	496	1080	735	623	274
28	33.5	24.1	26.0	23.9	20.7	699	422	532	889	732	593	256
29	30.4	27.4	29.2	23.1	---	637	397	571	857	702	644	245
30	28.1	37.3	24.1	20.9	---	627	326	536	897	676	651	249
31	30.8	---	18.6	18.4	---	642	---	489	---	791	612	---
TOTAL	1475.9	1782.8	808.9	734.7	522.8	15900.0	13273	14128	25537	30051	28089	20592
MEAN	47.6	59.4	26.1	23.7	18.7	513	442	456	851	969	906	686
MAX	161	208	46.5	35.4	27.7	901	655	571	1470	1790	2540	1160
MIN	17.5	24.1	17.4	16.6	12.6	16.7	230	326	348	639	543	245
AC-FT	2927	3536	1604	1457	1037	31537	26327	28022	50652	59605	55714	40844

CAL YR 1978 TOTAL 78662.7 MEAN 216 MAX 1490 MIN 13.5 AC-FT 156024
WTR YR 1979 TOTAL 152895.1 MEAN 419 MAX 2540 MIN 12.6 AC-FT 303262

08364000 RIO GRANDE AT EL PASO, TX -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1930 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: January 1978 to current year.
WATER TEMPERATURES: January 1978 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,200 micromhos May 16, 1978; minimum daily, 654 micromhos Aug. 15, 1979.
WATER TEMPERATURES: Maximum daily, 28.0°C July 17, 1978; minimum daily, 2.0°C Jan. 19, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 4,100 micromhos Feb. 14; minimum daily, 654 micromhos Aug. 15.
WATER TEMPERATURES: Maximum daily, 27.0°C Aug. 13; minimum daily, 4.0°C Jan. 2.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SAMPLING DEPTH (FT) (00003)	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
OCT												
11...	1211	--	27	2820	8.4	26.5	21.5	8.6	9.1	460	200	130
16...	0915	--	26	2890	8.0	--	16.5	--	--	460	190	130
NOV												
02...	1011	--	37	3000	8.1	21.0	18.0	3.4	9.4	430	170	120
16...	0900	10	73	1840	8.0	--	--	--	--	340	130	100
DEC												
05...	1001	--	27	3000	8.3	9.0	11.0	11	11.4	480	210	140
18...	0910	--	26	3030	8.2	--	9.0	--	--	490	210	140
JAN												
10...	1001	--	24	3000	8.2	7.5	10.0	7.8	12.7	480	210	140
15...	0915	--	16	2990	8.2	--	9.0	--	--	460	190	130
FEB												
14...	0941	--	14	4100	8.8	19.0	12.5	6.8	12.5	550	260	150
20...	0900	--	14	3500	8.3	--	7.0	--	--	530	250	150
MAR												
19...	0900	--	790	873	7.7	--	10.0	--	--	220	76	65
21...	1111	--	763	895	9.4	20.5	12.0	370	8.8	230	91	71
APR												
17...	0900	--	460	1110	8.3	--	18.0	--	--	270	71	81
25...	1125	--	394	1240	8.4	26.0	19.0	63	9.4	250	57	71
MAY												
14...	0900	--	474	1100	8.0	--	24.1	--	--	270	80	83
23...	1023	--	499	1120	8.3	26.0	18.5	64	8.8	280	96	84
JUN												
12...	1050	--	761	990	8.3	29.0	19.5	410	8.5	250	77	76
22...	0900	--	805	904	7.9	--	25.5	--	--	240	64	73
JUL												
16...	0900	--	1180	826	7.5	--	26.5	--	--	210	58	66
19...	1530	--	1060	750	8.0	30.5	24.0	370	7.2	180	31	51
AUG												
13...	1530	--	960	825	7.8	34.0	27.0	96	7.2	240	76	73
16...	0900	--	2120	747	7.6	--	21.0	--	--	180	48	52
SEP												
17...	1500	--	1320	800	8.0	20.5	16.0	700	7.9	230	81	71
18...	0900	--	817	927	8.0	--	19.0	--	--	230	62	69

08364000 RIO GRANDE AT EL PASO, TX -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT												
11...	32	450	9.2	13	--	--	260	640	380	1.1	3.4	1860
16...	33	480	9.7	14	330	0	271	700	400	--	34	--
NOV												
02...	32	430	9.0	12	--	--	260	570	390	.8	33	1760
16...	22	280	6.6	12	260	0	213	410	230	--	20	--
DEC												
05...	32	450	8.9	12	--	--	270	670	400	.8	34	1890
18...	34	500	9.8	4.8	340	0	279	680	420	--	30	--
JAN												
10...	32	530	11	10	--	--	270	690	430	.8	34	2050
15...	32	490	10	13	330	0	271	660	440	--	31	--
FEB												
14...	42	690	13	11	--	--	290	840	620	.9	35	2580
20...	38	580	11	10	340	0	279	770	510	--	31	--
MAR												
19...	13	91	2.7	5.7	170	0	139	120	110	--	20	--
21...	13	85	2.4	6.3	--	--	140	100	110	.6	18	510
APR												
17...	16	130	3.5	8.0	240	0	197	220	94	--	17	--
25...	17	160	4.4	7.8	--	--	190	240	120	.7	17	779
MAY												
14...	15	120	3.2	8.1	230	0	189	240	90	--	16	--
23...	16	130	3.4	8.1	--	--	180	230	97	.7	11	697
JUN												
12...	14	110	3.0	7.3	--	--	170	210	72	.7	12	605
22...	13	99	2.8	6.9	210	0	172	210	64	--	13	--
JUL												
16...	12	88	2.6	6.3	190	0	156	140	60	--	17	--
19...	13	95	3.1	7.1	--	--	150	57	130	.5	17	561
AUG												
13...	13	110	3.1	6.8	--	--	160	210	79	.6	18	612
16...	12	68	2.2	6.4	160	0	130	140	54	--	14	--
SEP												
17...	13	97	2.8	6.6	--	--	150	170	75	.5	19	550
18...	13	99	2.9	6.9	200	0	160	180	78	--	20	--

08364000 RIO GRANDE AT EL PASO, TX -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT												
11...	1810	.15	--	.06	.63	.84	.250	--	--	4.8	--	--
16...	1950	--	--	--	--	--	--	--	--	--	--	--
NOV												
02...	1740	.15	--	.08	.62	.85	.160	0	130	--	4.1	.7
16...	1200	--	--	--	--	--	--	--	--	--	--	--
DEC												
05...	1900	.18	--	.05	.30	.53	.240	--	--	3.9	--	--
18...	1980	--	--	--	--	--	--	--	--	--	--	--
JAN												
10...	2030	.15	--	.00	.35	.50	.140	--	--	4.8	--	--
15...	1960	--	--	--	--	--	--	--	--	--	--	--
FEB												
14...	2560	2.0	--	.10	.63	2.7	.210	10	360	--	5.7	.5
20...	2260	--	--	--	--	--	--	--	--	--	--	--
MAR												
19...	509	--	--	--	--	--	--	--	--	--	--	--
21...	488	.42	--	.09	1.6	2.1	.150	--	--	17	--	--
APR												
17...	684	--	--	--	--	--	--	--	--	--	--	--
25...	748	.01	--	.01	.85	.87	.290	--	--	7.1	--	--
MAY												
14...	685	--	--	--	--	--	--	--	--	--	--	--
23...	685	.12	--	.07	.82	1.0	.360	0	0	--	4.1	--
JUN												
12...	604	.27	--	.02	1.6	1.9	.900	--	--	12	--	--
22...	582	--	--	--	--	--	--	--	--	--	--	--
JUL												
16...	483	--	--	--	--	--	--	--	--	--	--	--
19...	461	.21	--	.02	1.1	1.3	.590	--	--	15	--	--
AUG												
13...	607	.26	--	.05	.68	.99	.330	40	5	--	5.7	2.4
16...	425	--	--	--	--	--	--	--	--	--	--	--
SEP												
17...	545	.57	.54	.15	.77	1.5	2.40	--	--	17	--	--
18...	565	--	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
NOV									
02...	1011	10	9	0	100	1	2	0	0
FEB									
14...	0941	9	8	100	0	0	0	0	10
MAY									
23...	1023	6	6	200	100	0	0	10	0
AUG									
13...	1530	3	3	0	70	0	<1	20	10

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
NOV									
02...	1	2	10	4	620	0	20	10	210
FEB									
14...	2	0	10	3	370	10	4	4	440
MAY									
23...	0	0	11	0	3300	0	10	0	260
AUG									
13...	2	<3	9	0	3700	40	15	2	280

08364000 RIO GRANDE AT EL PASO, TX -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
NOV									
02...	130	.0	.0	0	0	0	0	30	0
FEB									
14...	360	.0	.0	0	0	1	1	20	20
MAY									
23...	0	.0	.1	0	0	0	0	30	20
AUG									
13...	5	.2	.1	0	0	0	0	30	<3

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
11...	1211	1100	1100
NOV			
02...	1011	930	2100
DEC			
05...	1001	270	1300
JAN			
10...	1001	240	1800
FEB			
14...	0941	620	1100
MAR			
21...	1111	230	1300
APR			
25...	1125	170	240
MAY			
23...	1023	240	380
JUN			
12...	1050	360	1600
JUL			
19...	1530	3200	3700
AUG			
13...	1530	1600	1300
SEP			
17...	1500	1730	3230

08364000 RIO GRANDE AT EL PASO, TX -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

IDENTIFICATION OF PHYTOPLANKTON

DATE TIME	NOV 2,78 1011	MAR 21,79 1111	MAY 23,79 1023	JUN 12,79 1050
TOTAL CELLS/ML	5500	12000	8600	850
DIVERSITY: DIVISION	0.2	1.4	1.6	1.3
.CLASS	0.2	1.4	1.6	1.3
..ORDER	0.5	1.7	1.9	1.3
...FAMILY	1.3	2.0	2.3	1.3
....GENUS	1.3	2.1	2.7	1.3

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	310	4	--	-
...MICRACTINIACEAE								
....MICRACTINIUM	92	2	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	130	2	--	-
....OOCYSTIS	--	-	850	7	540	6	310#	36
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	1700	14	89	1	--	-
....SCENEDESMUS	--	-	--	-	1500#	18	--	-
....TETRASTRUM	--	-	--	-	180	2	--	-
..TETRASPORALES								
...COCCOMYXACEAE								
....ELAKATOTHRIX	--	-	--	-	89	1	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	46	1	210	2	130	2	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	370	7	110	1	580	7	470#	55
....MELOSIRA	--	-	950	8	--	-	--	-
....STEPHANODISCUS	--	-	--	-	2300#	26	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	46	1	--	-	--	-	--	-
...CYMBELLACEAE								
....EPITHEMIA	--	-	110	1	--	-	--	-
...FRAGILARIACEAE								
....SYNEDRA	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	92	2	--	-	--	-	--	-
...NAVICULACEAE								
....DIPLONEIS	--	-	110	1	--	-	--	-
....NAVICULA	690	13	320	3	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	4100#	75	530	5	180	2	--	-
...SURIRELLACEAE								
....SURIRELLA	--	-	110	1	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	6800#	58	2500#	30	--	-
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	45	1	78	9

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08364000 RIO GRANDE AT EL PASO, TX -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	JUL 19,79	AUG 13,79	SEP 17,79
TIME	1530	1530	1500
TOTAL CELLS/ML	520	2800	870
DIVERSITY: DIVISION	1.5	1.2	1.0
.CLASS	1.5	1.2	1.0
..ORDER	1.5	1.2	1.7
...FAMILY	1.5	1.7	1.8
....GENUS	1.5	2.2	1.8

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...CHARACIACEAE						
....SCHROEDERIA	--	-	90	3	--	-
...MICRACTINIACEAE						
....MICRACTINIUM	--	-	--	-	--	-
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	180	6	--	-
....OOCYSTIS	--	-	--	-	--	-
...SCENEDESMACEAE						
....CRUCIGENIA	--	-	--	-	--	-
....SCENEDESMUS	--	-	1100#	39	--	-
....TETRASTRUM	--	-	360	13	--	-
..TETRASPORALES						
...COCCOMYXACEAE						
....ELAKATOTHRIX	--	-	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CARTERIA	--	-	--	-	27	3
....CHLAMYDOMONAS	260#	50	--	-	41	5
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	130#	25	900#	32	--	-
....MELOSIRA	--	-	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	--	-	--	-	--	-
...CYMBELLACEAE						
....EPITHEMIA	--	-	--	-	--	-
...FRAGILARIACEAE						
....SYNEDRA	--	-	--	-	27	3
...GOMPHONEMATACEAE						
....GOMPHONEMA	--	-	--	-	--	-
...NAVICULACEAE						
....DIPLONEIS	--	-	--	-	--	-
....NAVICULA	--	-	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	--	-	--	-	14	2
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	--	-	--	-	480#	56
..HORMOGONALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	--	-	220#	25
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	90	3	--	-
....TRACHELOMONAS	130#	25	90	3	55	6

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08364000 RIO GRANDE AT EL PASO, TX -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
PERIPHYTON

DATE	TIME	LENGTH OF EXPO-SURE (DAYS) (00022)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	SAMPLING METHOD
OCT 11...	1211	29	139	129	26.2	6.60	--	Polyethylene strip
MAR 21...	1111	34	59.6	56.7	33.5	8.74	--	"
MAY 23...	1023	28	2.52	2.20	.660	.000	485	"
JUN 12...	1050	20	.080	.080	.470	.470	.00	"
SEP 17...	1500	35	.080	.080	.050	.000	.00	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 11...	1211	27	21.5	20	1.5	96
NOV 02...	1011	37	18.0	34	3.4	67
DEC 05...	1001	27	11.0	40	2.9	61
JAN 10...	1001	24	10.0	19	1.2	69
FEB 14...	0941	14	12.5	15	.57	87
MAR 21...	1111	763	12.0	1350	2780	64
APR 25...	1125	394	19.0	175	186	75
MAY 23...	1023	499	18.5	202	272	84
JUN 12...	1050	761	19.5	1190	2450	87
JUL 19...	1800	1060	24.0	1000	2860	49
AUG 13...	1530	960	27.0	572	1480	56
SEP 17...	1500	1320	16.0	3690	13200	64

08364000 RIO GRANDE AT EL PASO, TX -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2280	3110	2710	2770	3280	3850	921	1170	1130	853	853	831
2	2240	2830	2860	3240	3440	3800	922	1160	1120	847	908	831
3	2350	1170	2930	3000	3670	3800	921	1190	978	830	812	768
4	2240	1270	3080	2830	3440	3680	946	1210	904	828	872	795
5	2710	1620	2930	2790	3670	3680	921	1190	935	841	906	841
6	2680	1920	2920	3030	3680	3680	938	1180	1020	848	888	849
7	2710	2120	3090	3030	3540	3680	946	1100	1010	877	874	840
8	2670	2420	2860	2880	3350	3730	963	1080	1070	908	872	790
9	2650	2600	3290	3050	3540	3760	1050	1090	843	962	911	797
10	2650	2590	3050	3130	3440	3780	1010	1100	861	906	983	823
11	2810	2340	2920	3020	3380	1170	1000	1110	845	877	839	806
12	2830	2390	3170	3050	3660	992	991	1060	843	891	805	810
13	2810	2560	3180	3250	3640	895	1030	1060	866	828	763	867
14	2830	2110	3200	2680	3710	860	981	1060	1100	808	700	983
15	2790	1820	3100	3030	3650	857	1060	1090	859	818	654	920
16	2790	1970	3100	2910	3470	838	991	1060	859	800	724	824
17	3040	2340	3020	2860	3680	857	1090	1030	824	794	832	896
18	3100	2390	3090	2910	3810	841	1080	1050	859	759	1220	1010
19	3070	2730	3230	3040	3680	855	1140	992	841	776	1260	1240
20	3070	2590	3110	2880	3510	869	1220	1040	829	733	1160	1360
21	3020	2760	2760	3250	3700	877	1220	1040	829	738	1130	1560
22	3070	2770	2670	3260	3760	879	1190	1040	841	757	1230	1540
23	3090	2830	2480	3260	3450	905	1170	1140	828	773	916	1470
24	3140	2830	2530	3290	3710	895	1140	1150	817	831	1260	1470
25	2080	2790	2710	3050	3660	905	1110	1090	818	890	1140	1380
26	2030	3020	2750	3050	3410	897	1150	1030	795	921	1120	1730
27	2090	2880	2930	3120	3580	895	1120	1040	808	860	1110	1860
28	2070	2850	2940	3270	3720	921	1130	1030	820	878	1190	1900
29	3020	2600	2810	3230	---	923	1110	1000	774	862	1090	1880
30	2120	2570	2930	3120	---	951	1180	1050	834	812	1060	1950
31	2270	---	2950	3570	---	928	---	1120	---	816	816	---
MEAN	2660	2430	2950	3060	3580	1820	1050	1090	892	836	964	1150

WTR YR 1979 MEAN 1860 MAX 3850 MIN 654

08364000 RIO GRANDE AT EL PASO, TX -- Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16.0	15.0	11.0	5.5	7.5	13.0	14.5	20.0	20.0	25.0	25.5	19.5
2	16.5	15.5	11.0	4.0	8.0	13.5	15.0	21.0	18.5	22.0	23.0	21.5
3	17.0	15.0	11.5	6.0	8.5	14.0	16.0	21.5	18.0	21.0	26.5	18.5
4	17.0	14.5	11.0	6.5	8.5	14.0	14.0	22.5	17.0	19.5	25.0	17.0
5	16.5	14.0	10.5	6.5	7.0	14.5	15.0	21.0	16.5	22.0	26.5	16.5
6	16.0	14.5	10.0	6.0	7.0	14.0	18.0	22.0	17.0	23.5	25.0	15.0
7	16.5	13.5	7.5	6.5	6.5	14.5	17.5	20.0	17.0	23.0	19.5	18.5
8	17.0	13.5	5.0	7.0	7.0	15.0	16.5	22.0	17.5	22.0	26.0	19.5
9	16.5	13.5	5.0	7.5	6.0	14.0	17.0	20.0	18.0	23.5	25.0	20.5
10	16.5	13.0	5.5	8.0	5.5	14.5	18.0	19.5	18.5	25.5	26.5	21.5
11	16.0	14.0	6.0	8.0	8.0	13.0	17.0	21.0	17.0	24.0	24.5	19.5
12	16.5	14.0	6.0	8.0	8.5	12.0	18.0	22.5	19.5	26.0	21.5	18.0
13	16.5	14.0	6.0	7.5	8.0	12.5	18.5	21.0	21.0	23.5	17.0	18.5
14	17.0	14.5	5.5	6.5	9.0	12.0	18.5	20.0	22.0	23.0	17.5	17.5
15	17.5	14.0	6.0	7.0	9.5	14.0	17.5	20.5	24.5	25.0	18.5	19.0
16	17.0	13.5	6.0	8.0	10.5	14.5	18.0	21.5	23.0	22.5	20.0	16.0
17	16.5	14.0	5.0	7.5	11.0	13.5	18.0	20.0	21.5	20.5	23.5	17.0
18	16.0	14.5	5.5	7.0	12.0	14.0	18.5	21.0	20.0	20.0	21.0	16.5
19	16.0	14.0	6.5	7.0	12.0	15.0	18.0	18.5	20.0	18.0	18.0	15.5
20	15.5	14.0	6.0	8.0	12.5	14.0	19.0	19.0	18.5	17.0	19.5	17.0
21	15.5	13.5	5.5	7.5	13.0	14.5	17.5	20.0	22.5	19.5	24.0	17.0
22	16.0	13.5	5.5	7.0	12.5	15.0	19.0	21.0	23.0	22.0	17.5	16.0
23	16.5	13.0	6.0	7.0	13.0	15.5	19.0	18.5	24.0	23.5	18.0	15.0
24	16.0	13.0	6.0	7.5	13.5	15.0	19.5	19.5	25.5	25.0	16.0	17.0
25	15.5	13.5	5.5	8.0	13.5	15.0	19.0	18.0	23.0	23.5	16.5	16.5
26	15.0	13.0	5.0	8.0	13.0	15.0	18.0	19.5	19.5	25.5	25.5	16.5
27	15.0	12.5	5.5	7.5	14.0	15.5	18.5	19.0	22.0	24.0	23.5	17.0
28	15.5	12.0	6.0	7.5	14.5	16.0	18.5	21.0	24.5	21.0	20.5	18.0
29	15.0	11.0	6.0	8.5	---	16.0	19.0	19.0	24.0	25.0	18.5	16.5
30	15.0	11.0	5.5	8.0	---	15.5	19.0	20.0	23.5	24.5	19.5	16.0
31	15.5	---	5.0	8.0	---	15.0	---	21.0	---	26.5	21.5	---
MEAN	16.0	13.5	6.5	7.0	10.0	14.5	17.5	20.5	20.5	23.0	21.5	17.5

WTR YR 1979 MEAN 15.5 MAX 26.5 MIN 4.0

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

LOCATION.--Lat 31°05'05", long 105°36'25", Hudspeth County, Hydrologic Unit 13040201, at gaging station on the rectified channel of the Rio Grande, 1.5 mi (2.4 km) downstream from Old Fort Quitman, and 81.7 mi (131.5 km) downstream from the American Dam at El Paso.

DRAINAGE AREA.--31,944 mi^2 (82,735 km^2), United States and Mexico; from International Boundary and Water Commission Water Bulletin No. 46.

PERIOD OF RECORD.--Water years 1930 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1974 to current year.

WATER TEMPERATURES: October 1974 to current year.

REMARKS.--Records of discharge for water year 1979 are given in International Boundary and Water Commission Water Bulletins Nos. 48 and 49.

EXTREMES FOR PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: Maximum daily, 13,000 micromhos May 18, 1977; minimum daily, 368 micromhos Aug. 9, 1978.

WATER TEMPERATURES: Maximum 39.5°C Sept. 5, 1979; minimum daily, 0.5°C Jan. 25, 1978.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE.--Maximum daily 12,000 micromhos May 4; minimum daily, 935 micromhos Aug. 15.

WATER TEMPERATURES.--Maximum 39.5°C Sept. 5; minimum 2.5°C Jan. 2.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
OCT 11...	1751	7.0	9800	7.8	22.5	22.5	1.4	7.3	1600	1400	380
NOV 02...	1611	16	6230	8.3	22.0	20.5	25	9.1	1100	850	300
DEC 05...	1515	39	3500	8.2	21.5	11.0	32	10.8	600	380	170
JAN 10...	1616	5.6	8900	8.2	7.0	7.5	7.9	18.1	1500	1300	360
FEB 14...	1618	6.4	10000	7.8	26.0	17.0	--	10.6	--	--	--
MAR 21...	1741	5.4	11400	8.2	12.0	13.0	15	8.8	1600	1400	380
APR 24...	1624	6.2	10200	8.0	31.0	28.0	25	8.4	1600	1400	410
MAY 23...	1711	2.3	10100	7.9	32.0	30.5	14	8.9	1700	1600	430
JUN 12...	1712	5.8	8990	8.0	30.0	29.0	27	14.0	1500	1300	370
JUL 24...	1400	100	1500	8.1	37.0	31.5	620	5.9	270	110	75
AUG 14...	1230	60	1700	8.0	28.5	24.0	480	6.0	960	750	270
SEP 18...	1200	130	1000	8.0	23.5	17.0	440	7.5	290	120	88

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT 11...	160	1500	16	19	240	1200	2500	.9	2.7	6610	5910
NOV 02...	86	1000	13	17	250	1000	1400	.7	23	4000	3980
DEC 05...	43	490	8.7	17	220	590	610	.8	25	2210	2080
JAN 10...	150	1500	17	20	190	1400	2200	.5	22	5950	5770
FEB 14...	--	--	--	--	--	--	--	--	--	--	--
MAR 21...	160	1700	18	18	220	1700	2500	.8	20	6950	6610
APR 24...	140	1600	17	20	220	1500	2400	.8	20	6440	6220
MAY 23...	160	1800	19	21	180	1300	2600	.9	21	6970	6440
JUN 12...	140	1500	17	18	170	1400	2200	.5	15	5840	5750
JUL 24...	20	220	5.8	10	160	140	340	.7	17	1000	919
AUG 14...	69	770	11	13	210	880	1100	.7	19	3340	3250
SEP 18...	18	170	4.3	8.2	170	260	180	.6	20	853	850

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX -- Continued
(National stream-quality accounting network)

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT 11...	.05	--	.01	.99	1.1	.090	50	200	9.7	9.2	1.4
NOV 02...	.62	--	1.9	2.6	5.1	1.40	290	170	--	9.1	<3.3
DEC 05...	1.8	--	5.4	1.4	8.6	2.80	--	--	17	--	--
JAN 10...	.04	--	.00	1.0	1.0	.170	--	--	18	--	--
FEB 14...	--	--	--	--	--	--	--	--	--	--	--
MAR 21...	.00	--	.06	.88	.94	.060	--	--	12	--	--
APR 24...	.01	--	.05	1.4	1.4	.080	--	--	15	--	--
MAY 23...	.01	--	.08	1.2	1.3	.040	30	50	--	12	5.2
JUN 12...	.02	--	.32	1.2	1.5	.150	--	--	17	--	--
JUL 24...	.43	--	.09	2.3	2.8	.780	--	--	26	--	--
AUG 14...	.70	--	.22	1.5	2.4	.890	40	10	--	9.9	2.1
SEP 18...	1.6	.68	.03	2.3	3.9	2.00	--	--	15	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
OCT 11...	1751	4	3	100	100	0	0	0	10
NOV 02...	1611	9	9	0	0	2	0	0	0
MAY 23...	1711	3	5	0	100	0	0	10	10
AUG 14...	1230	10	7	300	200	0	0	40	10

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
OCT 11...	0	0	4	2	220	50	6	2	240
NOV 02...	2	0	6	3	950	290	3	0	190
MAY 23...	0	0	6	6	430	30	13	0	120
AUG 14...	8	0	18	1	16000	40	24	3	1000

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX -- Continued
(National stream-quality accounting network)

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT 11...	200	.0	.0	0	0	3	0	40	40
NOV 02...	170	.0	.1	1	1	0	0	30	30
MAY 23...	50	.1	.0	0	0	0	0	30	30
AUG 14...	10	.3	.0	0	0	0	0	90	20

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	ATRAZINE, TOTAL (UG/L) (39630)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)
OCT 11...	1751	--	--	--	--	ND	--	--	--	--	--	--
NOV 02...	1611	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND
FEB 14...	1618	ND	--	ND	--	--	ND	--	ND	--	ND	--
MAY 23...	1711	ND	ND	ND	ND	--	ND	ND	ND	ND	ND	ND
AUG 14...	1230	ND	--	ND	--	--	ND	--	ND	--	ND	--

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL (UG/L) (39570)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39399)	HEPTACHLOR, TOTAL (UG/L) (39410)
OCT 11...	--	--	--	--	--	--	--	--	--	--	--
NOV 02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 14...	ND	--	ND	--	ND	--	ND	--	ND	--	ND
MAY 23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 14...	ND	--	ND	--	ND	--	ND	--	ND	--	ND

DATE	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, TOTAL (UG/L) (39530)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39531)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARATHION, TOTAL (UG/L) (39600)	METHYL PARATHION, TOT. IN BOTTOM MATL. (UG/KG) (39601)
OCT 11...	--	--	--	--	--	--	--	--	--	--	--
NOV 02...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 14...	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 23...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 14...	--	ND	--	ND	-	ND	--	ND	--	ND	--

ND Material specifically tested for but not detected.

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX -- Continued

(National stream-quality accounting network)

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	METHYL TRI- THION, TOTAL (UG/L) (39790)	METHYL TRI- THION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARA- THION, TOTAL (UG/L) (39540)	PARA- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39541)	SIMA- ZINE TOTAL COUL- SON COND. (UG/L) (39025)	TOX- APHENE, TOTAL (UG/L) (39400)	TOXA- PHENE, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39403)	TOTAL TRI- THION (UG/L) (39786)	TRI- THION, TOTAL IN BOT- TOM MA- TERIAL (UG/KG) (39787)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)
OCT 11...	--	--	--	--	ND	--	--	--	--	ND	ND
NOV 02...	ND	ND	ND	ND	--	ND	ND	ND	ND	--	--
FEB 14...	ND	--	ND	--	--	ND	--	ND	--	--	--
MAY 23...	ND	ND	ND	ND	--	ND	ND	ND	ND	--	--
AUG 14...	ND	--	ND	--	--	ND	--	ND	--	--	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 11...	1751	200	240
NOV 02...	1611	390	1000
DEC 05...	1515	30	360
JAN 10...	1616	3700	41
FEB 14...	1618	60	75
MAR 21...	1741	30	400
APR 24...	1624	83	300
MAY 23...	1711	39	84
JUN 12...	1712	77	78
JUL 24...	1400	1200	7500
AUG 14...	1230	2700	31000
SEP 18...	1200	6000	6280

ND Material specifically tested for but not detected.

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX -- Continued
(National stream-quality accounting network)

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 11,78	NOV 2,78	MAR 21,79	MAY 23,79
TIME	1751	1611	1741	1711
TOTAL CELLS/ML	21000	21000	9400	75000
DIVERSITY: DIVISION	1.1	1.2	1.3	1.4
.CLASS	1.1	1.2	1.3	1.4
..ORDER	1.8	1.5	2.2	2.2
...FAMILY	2.0	2.0	2.6	2.2
....GENUS	2.3	2.0	2.7	2.5

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	--	-	--	-	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	--	-	--	-	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	--	-	--	-
....MICRACTINIUM	--	-	13000#	63	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	150	1	*	0	200	2	6300	9
....CHODATELLA	--	-	*	0	--	-	--	-
....DICTYOSPHAERIUM	200	1	--	-	--	-	--	-
....KIRCHNERIELLA	200	1	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	1500	2
...SCENEDESMACEAE								
....ACTINASTRUM	1400	7	--	-	--	-	--	-
....SCENEDESMUS	1000	5	1100	5	2000#	21	--	-
....TETRASTRUM	200	1	--	-	--	-	--	-
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	*	0	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	--	-	--	-	--	-	--	-
....CHLAMYDOMONAS	450	2	1100	5	610	6	910	1
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...BIDDULPHIACEAE								
....BIDDULPHIA	--	-	--	-	--	-	--	-
...COSCINODISCACEAE								
....CYCLOTELLA	600	3	320	2	2800#	29	13000#	17
....MELOSIRA	--	-	--	-	--	-	--	-
....STEPHANODISCUS	300	1	--	-	--	-	4800	6
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
...FRAGILARIACEAE								
....SYNEDRA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....ANOMOEONEIS	--	-	--	-	--	-	--	-
....CALONEIS	--	-	--	-	--	-	--	-
....ENTOMONEIS	--	-	--	-	--	-	--	-
....NAVICULA	150	1	1500	7	340	4	--	-
....PINNULARIA	--	-	--	-	270	3	--	-
...NITZSCHIACEAE								
....NITZSCHIA	200	1	1600	8	2500#	26	19000#	25
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	67	1	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	320	2	--	-	--	-

NOTE:" # - DOMINANT ORGANISM: EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED: LESS THAN 1/2%

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX -- Continued
(National stream-quality accounting network)

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 11,78		NOV 2,78		MAR 21,79		MAY 23,79	
TIME	1751		1611		1741		1711	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	3000	15	--	-	270	3	5100	7
....COCCOCHLORIS	200	1	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
....NODULARIA	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	12000#	59	1700	8	--	-	24000#	32
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	300	1	180	1	67	1	--	-
....PHACUS	--	-	*	0	--	-	--	-
....TRACHELOMONAS	--	-	--	-	270	3	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	*	0	--	-	130	1	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX -- Continued
(National stream-quality accounting network)

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

IDENTIFICATION OF PHYTOPLANKTON

DATE	JUN 12,79	JUL 24,79	AUG 14,79	SEP 18,79
TIME	1712	1400	1230	1200
TOTAL CELLS/ML	41000	32000	13000	10000
DIVERSITY: DIVISION	0.5	1.1	1.6	0.9
.CLASS	0.5	1.1	1.6	0.9
..ORDER	1.4	1.3	1.9	1.1
...FAMILY	1.5	1.5	2.5	2.2
....GENUS	1.6	1.6	2.5	2.6

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...CHARACIACEAE								
....SCHROEDERIA	--	-	780	2	520	4	--	-
...COELASTRACEAE								
....COELASTRUM	--	-	1600	5	2600#	20	--	-
...MICRACTINIACEAE								
....GOLENKINIA	--	-	--	-	520	4	--	-
....MICRACTINIUM	--	-	--	-	--	-	--	-
...OOCYSTACEAE								
....ANKISTRODESMUS	1200	3	--	-	--	-	50	1
....CHODATELLA	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	--	-	--	-
....SELENASTRUM	600	1	--	-	--	-	--	-
...SCENEDESMACEAE								
....ACTINASTRUM	--	-	--	-	--	-	--	-
....SCENEDESMUS	1800	4	1600	5	--	-	*	0
....TETRASTRUM	1200	3	520	2	1000	8	--	-
..TETRASPORALES								
...PALMELLACEAE								
....SPHAEROCYSTIS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CARTERIA	--	-	--	-	--	-	50	1
....CHLAMYDOMONAS	--	-	*	0	260	2	*	0
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...BIDDULPHIACEAE								
....BIDDULPHIA	--	-	--	-	--	-	*	0
...COSCINODISCACEAE								
....CYCLOTELLA	21000#	51	2800	9	1300	10	330	3
....MELOSIRA	--	-	260	1	--	-	--	-
....STEPHANODISCUS	--	-	--	-	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	50	1
...FRAGILARIACEAE								
....SYNEDRA	--	-	--	-	--	-	75	1
...NAVICULACEAE								
....ANOMOEONEIS	--	-	--	-	--	-	*	0
....CALONEIS	--	-	--	-	--	-	50	1
....ENTOMONEIS	--	-	--	-	--	-	*	0
....NAVICULA	--	-	--	-	770	6	380	4
....PINNULARIA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	15000#	37	1200	4	--	-	1300	13
...SURIRELLACEAE								
....SURIRELLA	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	260	2	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	--	-	--	-	--	-	--	-
....COCCOCHLORIS	--	-	--	-	--	-	--	-
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	5400#	43	3600#	36
....NODULARIA	--	-	--	-	--	-	1400	14
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	23000#	73	--	-	2200#	22
...RIVULARIACEAE								
....RAPHIDIOPSIS	--	-	--	-	--	-	380	4

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX -- Continued
(National stream-quality accounting network)

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PERIPHYTON

DATE TIME	JUN 12,79 1712		JUL 24,79 1400		AUG 14,79 1230		SEP 18,79 1200	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-
....PHACUS	--	-	--	-	--	-	--	-
....TRACHELOMONAS	--	-	--	-	--	-	*	0
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

DATE	TIME	LENGTH OF EXPO-SURE (DAYS) (00022)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	SAMPLING METHOD
NOV 02...	1611	22	8.27	7.17	14.7	1.01	--	Polyethylene strip
FEB 14...	1618	35	.710	.630	.290	.000	--	"
MAY 23...	1711	29	50.9	47.1	.610	.430	6229	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 to SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 11...	1751	7.0	22.5	16	.30	92
NOV 02...	1611	16	20.5	78	3.4	75
DEC 05...	1515	39	11.0	369	39	26
JAN 10...	1616	5.6	7.5	37	.56	55
FEB 14...	1618	6.4	17.0	36	.62	59
MAR 21...	1741	5.4	13.0	57	.83	56
APR 24...	1624	6.2	28.0	45	.75	86
MAY 23...	1711	2.3	30.5	36	.22	74
JUN 12...	1712	5.8	29.0	74	1.2	80
JUL 24...	1515	88	31.5	1490	354	90
AUG 14...	1230	60	24.0	10100	1640	89
SEP 18...	1200	130	17.0	1920	674	70

08370500 RIO GRANDE BELOW OLD FORT QUITMAN, TX
(National stream-quality accounting network)

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2180	3970	3900	7120	8850	9640	10800	11200	4000	---	6680	5120
2	2760	4200	3970	7620	8430	9310	10700	10600	4240	3490	6720	7360
3	2950	5230	4070	7090	8550	9730	10300	10500	2780	4020	6390	7090
4	2970	3710	3540	6590	8170	10100	9470	12000	3480	---	6370	8050
5	5700	2010	3540	7110	8350	9230	11100	11200	3450	---	5830	6640
6	6120	1520	3500	7430	8530	9820	10300	10200	8900	---	6940	5600
7	6130	1630	3890	8650	8600	9820	11100	11200	8910	---	5320	6650
8	7080	1900	4300	7990	9000	9390	10800	11500	5720	---	1760	7220
9	7280	2330	4310	9210	8640	9640	10800	11200	5500	---	1740	6080
10	7580	2770	4300	8610	8600	9550	10500	11900	8170	---	3260	5720
11	8050	2740	4460	6160	8710	9910	10500	11500	8840	---	5730	7700
12	8890	2910	4530	7910	8880	9820	10400	11100	8840	---	5600	7890
13	8930	2840	4080	8090	9390	10100	10400	11400	9080	---	6650	7050
14	9120	2870	4460	8410	9350	9820	9310	11400	9080	---	6650	7920
15	9660	2770	4580	8800	9560	9730	9390	11400	9520	---	935	7970
16	9440	2810	4260	8040	10400	9730	9080	11200	9330	---	991	7640
17	8060	2850	5990	8970	9890	9820	9000	11100	9360	---	1080	7640
18	8720	2770	6070	8660	10200	9820	8240	10600	10500	---	1460	1990
19	8720	2830	4480	8200	10300	10500	8440	10600	10200	---	1460	1940
20	8120	2830	5250	8030	10300	10200	8640	10400	10200	---	1850	2640
21	8110	2780	6740	8920	9440	10300	9470	11400	8610	---	2410	3820
22	8420	2950	6230	8900	9920	10300	10600	10300	8610	---	2400	2990
23	7570	2890	5460	7770	9440	10100	10000	11600	3070	---	3110	3040
24	3430	2980	5440	7530	10100	10100	9000	11400	3040	1630	4100	3150
25	3370	2850	5440	7300	10000	9550	9730	9530	3450	1630	4100	3140
26	1820	2890	5860	8090	9950	10200	9820	9530	3440	4000	4720	3710
27	2100	3210	5880	8230	9920	10100	10300	9710	---	6220	6760	3720
28	2290	3560	6110	8990	10100	10200	10600	9710	---	4010	6760	4090
29	2600	3750	6130	9010	---	11300	10400	10200	---	6310	7420	4220
30	3050	3970	6130	9290	---	10700	10500	11100	---	6290	7390	3940
31	3480	---	3450	8880	---	10700	---	---	---	6290	6790	---
MEAN	5960	2980	4850	8120	9340	9980	9990	10900	6940	4390	4500	5390

WTR YR 1979 MEAN 7080 MAX 12000 MIN 935

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27.5	23.0	14.5	4.0	15.0	14.5	18.0	28.0	21.0	---	31.0	34.5
2	27.5	22.0	14.0	2.5	10.5	11.0	17.0	25.5	23.5	30.0	31.5	34.0
3	26.0	22.0	14.0	6.0	6.0	16.0	16.0	29.0	20.0	31.5	30.0	33.0
4	25.5	19.5	11.0	9.0	7.5	14.0	20.0	23.5	24.0	---	31.0	34.5
5	19.0	12.5	13.0	8.0	5.5	19.0	17.0	25.0	24.0	---	27.5	39.5
6	20.5	18.0	12.0	7.0	9.5	17.0	17.0	28.5	28.5	---	24.0	26.0
7	20.0	18.5	11.0	6.0	9.0	17.5	26.5	25.5	30.0	---	27.5	29.5
8	25.0	19.5	7.5	6.0	10.5	6.5	18.0	28.5	31.5	---	24.5	28.0
9	27.5	20.0	6.5	8.0	8.0	18.0	18.5	23.5	30.0	---	25.5	26.5
10	26.0	17.0	7.0	8.0	10.5	18.0	18.0	19.5	28.5	---	25.5	28.0
11	23.5	17.5	8.5	9.0	9.0	15.5	18.0	23.5	31.5	---	23.5	28.0
12	20.0	20.0	9.0	9.5	10.0	21.0	24.5	29.0	31.5	---	26.0	29.0
13	19.5	19.0	9.5	9.5	9.5	22.0	24.0	28.5	31.0	---	24.5	24.5
14	22.0	17.5	9.0	5.5	9.5	19.0	14.5	29.0	31.0	---	21.5	15.0
15	27.0	17.0	10.5	8.0	15.0	22.0	19.0	29.0	33.5	---	22.5	15.5
16	25.0	16.0	10.0	8.5	14.5	23.0	26.0	25.0	33.0	---	24.0	19.5
17	24.0	12.5	9.0	10.0	15.0	21.0	26.0	27.0	32.5	---	23.0	19.5
18	17.5	15.0	10.0	10.5	12.0	21.5	25.0	26.5	31.5	---	22.0	20.0
19	17.0	14.5	9.0	8.5	16.0	23.0	21.5	20.0	31.5	---	22.0	20.0
20	25.0	15.5	8.5	9.0	9.0	21.0	24.5	21.0	32.0	---	22.5	24.5
21	25.0	15.5	8.0	10.0	13.5	17.5	24.0	24.0	31.0	---	22.0	23.5
22	25.0	17.5	7.5	8.5	15.5	17.5	22.5	26.5	31.5	---	22.0	23.0
23	21.0	16.5	9.0	8.0	16.0	18.0	22.5	27.0	32.0	---	23.0	23.0
24	20.5	17.0	8.0	8.5	14.0	18.5	23.0	27.5	29.5	33.5	23.0	22.5
25	22.0	15.0	10.5	10.5	14.5	18.0	23.5	25.0	28.0	33.5	23.0	22.0
26	17.0	17.5	9.5	10.0	14.5	18.0	28.5	25.0	26.5	32.5	24.0	22.5
27	16.0	13.5	9.0	11.0	14.0	18.5	24.5	29.5	---	30.0	30.0	22.0
28	18.0	10.5	9.5	4.5	16.5	17.5	31.0	29.0	---	32.5	30.0	19.0
29	21.0	13.0	8.5	7.5	---	16.0	24.0	27.5	---	31.0	34.0	21.5
30	19.0	14.0	8.0	6.0	---	18.0	24.5	21.0	---	35.0	34.5	18.0
31	16.0	---	7.5	6.5	---	18.0	---	---	---	37.0	24.0	---
MEAN	22.0	17.0	9.5	8.0	12.0	18.0	22.0	26.0	29.0	32.5	26.0	25.0

WTR YR 1979 MEAN 19.5 MAX 39.5 MIN 2.5

08377900 RIO MORA NEAR TERRERO, NM
(Hydrologic bench-mark station)

LOCATION.--Lat 35°46'38", long 105°39'27", in E½NE¼ sec.22, T.18 N., R.12 E., San Miguel County, Hydrolgic Unit 13060001, in Santa Fe National Forest, on left bank 450 ft (140 m) upstream from bridge on State Highway 63, 600 ft (180 m) upstream from mouth, and 2.6 mi (4.2 km) north of Terrero.

DRAINAGE AREA.—53.2 mi^2 (137.8 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 7,890 ft (2,450 m), from topographic map.

REMARKS.—Water-discharge records good except those for winter period, which are poor. About 90 percent of the drainage is in the Pecos Wilderness Area and not subject to development, watershed management, or the building of highways; there is limited cattle grazing by permit.

AVERAGE DISCHARGE.—16 years, 29.0 ft^3/s (0.821 m^3/s), 21,010 acre-ft/yr (25.9 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 820 ft^3/s (23.2 m^3/s) June 8, 1979, gage height, 4.15 ft (1.265 m); minimum determined, 0.90 ft^3/s (0.025 m^3/s) Jan. 12-14, 1964, but may have been less during periods of ice effect.

EXTREMES OUTSIDE PERIOD OF RECORD.—Greatest flood since 1886 probably occurred Sept. 29, 1904 (based on statement for Pecos River near Pecos and history of that flood period).

EXTREMES FOR CURRENT YEAR.—Peak discharges above base of 100 ft^3/s (2.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 7	2345	220	6.23	2.82	.860
May 26	2400	652	18.5	3.91	1.192
June 8	2315	*820	23.2	4.15	1.265

Minimum discharge, 4.4 ft^3/s (0.12 m^3/s) Mar. 5, result of freezeup, but may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.8	7.4	10	6.0	6.5	9.5	15	123	406	60	16	20
2	5.8	7.5	9.3	5.0	7.5	9.6	14	129	345	63	15	19
3	5.6	11	7.5	5.0	7.0	9.1	14	129	303	62	15	19
4	5.6	18	8.8	5.0	7.0	7.9	14	114	293	56	15	17
5	5.4	16	12	5.5	6.5	8.7	13	116	440	52	14	16
6	5.3	13	9.4	5.5	7.0	9.6	16	155	465	48	15	16
7	5.2	11	8.0	6.0	7.5	9.4	26	198	419	45	15	15
8	5.1	11	7.0	5.5	7.5	12	40	212	495	41	16	15
9	5.0	11	5.0	5.5	8.0	16	50	207	597	38	17	15
10	4.9	11	8.0	5.4	8.0	17	40	172	431	36	21	14
11	4.8	12	9.0	5.4	8.5	16	31	143	355	33	21	16
12	5.0	15	9.0	5.7	9.0	18	27	124	315	31	16	15
13	4.9	15	10	5.6	9.5	20	25	118	282	29	15	14
14	4.9	14	10	5.4	9.8	23	30	131	257	27	39	14
15	5.0	13	10	5.5	16	23	51	153	249	27	61	15
16	4.9	12	10	5.5	18	21	75	167	237	26	74	14
17	4.8	11	10	5.6	15	21	95	198	222	27	62	13
18	4.8	13	11	5.7	13	19	141	228	200	26	55	12
19	4.8	15	11	6.1	13	18	161	261	178	25	40	13
20	4.8	16	11	6.2	13	17	145	300	153	25	43	12
21	5.5	16	11	6.4	12	16	138	340	140	23	40	16
22	9.1	15	11	6.9	11	14	150	354	129	22	36	15
23	6.7	13	9.2	7.2	11	13	155	339	121	20	33	12
24	7.5	14	8.6	7.6	9.3	14	168	343	116	19	31	11
25	7.5	39	8.3	7.9	9.1	15	177	350	116	18	29	11
26	7.2	27	7.5	8.5	10	17	185	431	99	18	27	10
27	7.2	19	7.5	7.0	10	19	157	524	90	18	34	10
28	7.0	16	8.8	6.0	9.6	19	148	455	83	17	26	9.8
29	6.6	13	9.0	7.0	---	19	154	459	80	22	28	9.2
30	6.7	11	8.6	5.5	---	17	131	452	75	19	23	8.9
31	7.1	---	7.9	6.0	---	17	---	419	---	19	21	---
TOTAL	180.5	435.9	283.4	187.1	279.3	484.8	2586	7844	7691	1000	913	416.9
MEAN	5.82	14.5	9.14	6.04	9.98	15.6	86.2	253	256	32.3	29.5	13.9
MAX	9.1	39	12	8.5	18	23	185	524	597	60	74	20
MIN	4.8	7.4	5.0	5.0	6.5	7.9	13	114	75	17	14	8.9
AC-FT	358	865	562	371	554	962	5130	15560	15260	1980	1810	827

CAL YR 1978 TOTAL 9063.1 MEAN 24.8 MAX 215 MIN 2.0 AC-FT 17980
WTR YR 1979 TOTAL 22301.9 MEAN 61.1 MAX 597 MIN 4.8 AC-FT 44240

08377900 RIO MORA NEAR TERRERO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
NOV 09...	1150	11	111	8.2	14.0	2.0	10.8	56	13	19	2.1	1.7
JAN 11...	1100	5.4	108	7.6	2.5	.0	11.4	54	8	18	2.1	1.8
MAR 08...	1250	14	120	7.6	13.0	.5	11.4	59	14	20	2.3	1.6
MAY 03...	1315	130	83	8.2	4.5	3.5	10.6	36	14	12	1.4	1.1
JUN 09...	1540	582	65	7.6	--	7.0	--	--	--	--	--	--
JUL 12...	1320	31	80	7.7	29.0	15.0	7.5	41	14	14	1.4	1.0
SEP 07...	1250	16	100	7.9	23.5	12.5	8.6	44	11	15	1.6	1.3

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	CYANIDE TOTAL (MG/L AS CN) (00720)
NOV 09...	.1	.4	43	11	1.2	.2	6.9	69	68	.00	.000	--
JAN 11...	.1	.4	46	13	1.2	.2	6.8	73	71	.07	.010	--
MAR 08...	.1	.6	45	16	1.7	.3	7.1	80	77	.05	.000	.00
MAY 03...	.1	.7	22	9.1	1.0	.1	6.3	56	45	.04	.030	--
JUN 09...	--	--	--	--	--	--	--	--	--	--	--	--
JUL 12...	.1	.5	27	10	.5	.1	6.0	52	50	.01	.000	--
SEP 07...	.1	.4	33	9.4	.4	.2	6.3	62	54	.00	.000	.00

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)
MAR 08...	1250	0	0	3	0	4	90
SEP 07...	1250	1	200	0	0	0	20

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)
MAR 08...	26	0	.1	0	0	10
SEP 07...	2	8	.8	0	0	0

08377900 RIO MORA NEAR TERRERO, NM -- Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
SEP 07...	1250	1.2	<.4	.7	<.4	.7	<.4	.03	.21

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL (UG/L) (39350)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)
SEP 07...	1250	.0	0	.00	.0	.0	0	.00	.1	.00

DATE	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39373)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39383)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)
SEP 07...	.4	.00	.3	.00	.00	.0	.00	.00	.0	.00

DATE	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	MALA-THION, TOTAL (UG/L) (39530)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	METHYL PARA-THION, TOTAL (UG/L) (39600)
SEP 07...	.00	.0	.00	.0	.00	.0	.00	.00	.0	.00

DATE	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	MIREX, TOTAL (UG/L) (39755)
SEP 07...	.00	.00	0	0	.00	.00	.00	.00	.00

08377900 RIO MORA NEAR TERRERO, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV				
09...	1150	21	2	5
JAN				
11...	1100	12	1	1
MAR				
08...	1250	16	1	3
MAY				
03...	1315	28	0	0
JUL				
12...	1320	37	1	14
SEP				
07...	1250	12	1	25

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
NOV					
09...	1150	11	2.0	2	.06
FEB					
13...	1330	9.8	.5	5	.13
MAR					
14...	1140	23	.5	6	.37
APR					
11...	1205	30	2.5	4	.32
24...	1400	167	13.0	18	8.1
MAY					
03...	1315	130	3.5	5	1.8
24...	1040	321	5.0	24	21
JUN					
09...	1540	582	7.0	106	167
JUL					
03...	1315	64	9.5	3	.52
12...	1320	31	15.0	9	.75
26...	1115	19	15.0	2	.10
AUG					
27...	1700	34	16.0	1	.09
SEP					
07...	1250	16	12.5	1	.04
25...	1130	11	7.0	0	.00
25...	1200	11	7.0	25	.74

08378500 PECOS RIVER NEAR PECOS, NM

LOCATION.--Lat 35°42'30", long 105°40'55", in NE¼NE¼ sec.17, T.17 N., R.12 E., San Miguel County, Hydrologic Unit 13060001, in Santa Fe National Forest, on left bank 30 ft downstream from bridge on private road, 270 ft (82 m) upstream from Indian Creek, 2.4 mi (3.9 km) downstream from Holy Ghost Creek, 9.0 mi (14.5 km) north of Pecos, and at mile 896.6 (1,422.6 km).

DRAINAGE AREA.--189 mi² (490 km²).

PERIOD OF RECORD.--August 1919 to current year. Monthly discharge only for some periods, published in WSP 1312. Published as "near Cowles" 1919-25, "at Irvins Ranch" 1926-29, and as "at Irvins Ranch near Pecos" 1930-39.

REVISED RECORDS.--WSP 898: Drainage area. WSP 1312: 1932(M).

GAGE.--Water-stage recorder. Datum of gage is 7,502.94 ft (2,286.896 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 27, 1977, at site 30 ft (9.1 m) upstream at same datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 75 acres (30 hm²), 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--60 years, 97.5 ft³/s (2.761 m³/s), 70,640 acre-ft/yr (87.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 4,500 ft³/s (130 m³/s) Sept. 21 or 22, 1929, gage height, 6.2 ft (1.89 m), from floodmark, from rating curve extended above 1,600 ft³/s (45 m³/s); minimum, 2.0 ft³/s (0.057 m³/s) Mar. 19, 1971, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 29, 1904, was greatest since 1886, from information by local residents.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 310 ft³/s (8.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 25	2300	557	15.8	3.50	1.067	June 8	1830	*2200	62.3	4.73	1.442
May 8	0100	591	16.7	3.56	1.085	Aug. 16	1030	314	8.89	2.80	.853
May 29	2015	1540	43.6	4.52	1.378						

Minimum discharge, about 15 ft³/s (0.42 m³/s) Jan. 30, but may have been less during periods of ice effect.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	29	35	25	22	37	55	386	1290	433	93	70
2	26	30	34	20	25	35	50	405	1210	414	88	66
3	25	39	30	20	23	34	50	401	1100	407	85	65
4	25	62	29	22	23	35	46	355	1090	368	83	63
5	25	56	34	24	20	38	46	355	1350	342	78	60
6	26	44	30	24	21	42	55	437	1390	311	78	58
7	26	37	26	29	22	39	82	548	1420	289	77	57
8	24	35	23	22	22	44	122	584	1730	265	78	57
9	24	34	20	24	23	53	159	568	1720	247	79	56
10	24	33	25	25	25	52	132	483	1320	230	104	53
11	24	39	25	25	26	52	106	413	1120	215	99	58
12	24	50	27	25	27	60	88	370	1030	201	79	61
13	24	46	27	25	28	66	82	356	1000	188	73	54
14	24	43	27	25	30	71	97	394	1000	180	114	56
15	24	38	27	25	35	71	154	454	1000	180	187	58
16	23	33	25	25	32	72	225	472	998	171	252	56
17	23	30	25	25	32	74	279	546	933	172	181	51
18	24	34	28	24	30	67	388	616	853	165	159	52
19	24	33	30	24	30	62	446	709	770	157	141	51
20	24	36	30	24	35	59	409	772	682	150	127	50
21	25	33	25	24	37	57	387	859	631	143	117	62
22	39	36	25	24	37	51	405	859	608	136	108	63
23	30	32	25	24	34	50	436	859	592	126	101	52
24	33	39	26	22	34	50	484	888	582	119	95	48
25	33	127	26	27	34	53	500	940	594	113	90	45
26	32	80	25	29	34	61	531	1090	542	110	87	43
27	31	52	27	25	35	67	482	1380	507	111	110	42
28	31	36	29	20	35	68	459	1290	492	106	86	41
29	29	41	31	25	---	66	467	1370	492	122	80	40
30	27	37	31	18	---	60	412	1350	462	106	77	39
31	29	---	30	20	---	59	---	1290	---	102	74	---
TOTAL	828	1294	857	740	811	1705	7634	21799	28508	6379	3280	1627
MEAN	26.7	43.1	27.6	23.9	29.0	55.0	254	703	950	206	106	54.2
MAX	39	127	35	29	37	74	531	1380	1730	433	252	70
MIN	23	29	20	18	20	34	46	355	462	102	73	39
AC-FT	1640	2570	1700	1470	1610	3380	15140	43240	56550	12650	6510	3230

CAL YR 1978 TOTAL 26176 MEAN 71.7 MAX 409 MIN 15 AC-FT 51920
WTR YR 1979 TOTAL 75462 MEAN 207 MAX 1730 MIN 18 AC-FT 149700

08379500 PECOS RIVER NEAR ANTON CHICO, NM

LOCATION.--Lat 35°10'44", long 105°06'30", Guadalupe County, Hydrologic Unit 13060001, in Anton Chico Grant, on right bank 2.1 mi (3.4 km) upstream from Cañon Blanco, 2.3 mi (3.7 km) southeast of Anton Chico, 9.7 mi (15.6 km) downstream from Tecolote Creek, and at mile 808.0 (1,300.1 km). Water-quality sampling site 0.5 mi (0.8 km) upstream.

DRAINAGE AREA.--1,050 mi² (2,720 km²), approximately (contributing area).

PERIOD OF RECORD.--April 1910 to May 1916, October 1916 to September 1924, August to December 1925, January 1927 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1342: 1951(M), 1952-53. WSP 1512: 1912-14, 1931, 1933(M), 1935-36(M), 1938(P), 1939-40, 1941-42(P), 1945(M), 1946(P), 1949(P). WSP 1712: 1942(P).

GAGE.--Water-stage recorder. Altitude of gage is 5,130 ft (1,564 m) from river-profile map. See WSP 1312 for history of changes prior to June 21, 1951.

REMARKS.--Water-discharge records poor. Diversions above station for irrigation of about 4,900 acres (2.0 km²), 1959 determination, above and below station. Acequia del Bodo Juan Paiz (see table below) diverts water about 8 mi (13 km) above gage and bypasses this station on left bank; ditch flow not included in record. Discharge measurements made at point opposite regular gage. A portion of this flow may be returned to the river about 5.0 mi (8.0 km) downstream.

AVERAGE DISCHARGE.--66 years (1910-15, 1916-24, 1926-79), 130 ft³/s (3.682 m³/s), 94,180 acre-ft/yr (116 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,300 ft³/s (1,140 m³/s) June 1, 1937, gage height, 20.34 ft (6.200 m), from floodmarks, at site and datum then in use, by slope-area measurement; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since 1879 occurred Sept. 29, 1904, discharge about 73,000 ft³/s (2100 m³/s), from information by a local resident.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,550 ft³/s (129 m³/s) at 0300 May 1, gage height, 8.42 ft (2.566 m), no other peak above base of 3,000 ft³/s (85 m³/s); minimum, 0.11 ft³/s (0.003 m³/s) Dec. 26.

Discharge measurements, in cubic feet per second, of Acequia del Bodo Juan Paiz, Water Year 1979

May	22	3.2
July	6	51

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	2.0	100	10	14	64	141	630	1420	398	128	23
2	1.4	1.4	83	22	15	63	133	600	1610	359	93	22
3	1.5	225	69	40	15	64	131	606	1220	331	92	22
4	1.3	516	56	44	14	63	126	585	1280	316	72	21
5	1.1	117	42	43	13	59	117	492	1290	280	60	20
6	1.1	94	42	46	15	56	118	491	1300	296	54	18
7	1.2	86	35	42	18	54	122	580	1340	303	50	18
8	1.0	84	25	40	22	62	149	691	1380	214	45	18
9	.92	53	20	43	25	64	205	729	2270	188	41	18
10	.77	45	25	45	28	88	280	720	1850	159	40	17
11	.78	47	35	52	32	98	263	596	1570	141	96	17
12	1.1	53	32	59	34	93	228	497	1360	129	75	16
13	3.2	56	35	42	37	100	202	414	1270	122	70	120
14	5.5	71	40	32	46	111	185	388	1190	115	64	25
15	6.4	74	50	34	58	128	200	401	1140	120	314	22
16	.81	66	30	40	84	135	284	440	1090	124	525	20
17	.90	57	25	47	86	137	401	484	1050	149	442	19
18	.72	51	37	51	86	143	530	583	965	138	205	18
19	.71	44	41	51	72	136	734	658	878	130	165	16
20	3.4	44	41	37	73	136	790	830	796	118	143	17
21	1.4	44	33	30	81	132	726	1870	681	113	123	24
22	1.5	44	30	29	80	129	682	1240	604	98	90	56
23	10	44	40	28	77	123	710	1270	548	89	69	26
24	11	45	40	13	64	114	752	1420	514	82	65	23
25	11	68	28	20	63	112	794	1560	599	80	57	19
26	2.5	415	22	17	60	112	818	1260	520	83	48	20
27	2.4	290	18	14	60	121	830	1640	471	82	41	20
28	2.1	205	22	11	66	136	758	1700	440	78	44	19
29	1.8	140	24	13	---	146	710	1560	435	76	47	17
30	1.6	115	18	12	---	150	704	1540	459	80	24	17
31	2.0	---	20	12	---	143	---	1460	---	95	24	---
TOTAL	83.11	3196.4	1158	1019	1338	3272	12823	27935	31540	5086	3406	728
MEAN	2.68	107	37.4	32.9	47.8	106	427	901	1051	164	110	24.3
MAX	11	516	100	59	86	150	830	1870	2270	398	525	120
MIN	.71	1.4	18	10	13	54	117	388	435	76	24	16
AC-FT	165	6340	2300	2020	2650	6490	25430	55410	62560	10090	6760	1440

CAL YR 1978 TOTAL 22513.70 MEAN 61.7 MAX 2250 MIN .19 AC-FT 44660
WTR YR 1979 TOTAL 91584.51 MEAN 251 MAX 2270 MIN .71 AC-FT 181700

08380500 GALLINAS CREEK NEAR MONTEZUMA, NM

LOCATION.--Lat 35°39'07", long 105°19'06", San Miguel County, Hydrologic Unit 13060001, in Las Vegas Grant, on left bank 2.4 mi (3.9 km) west of Montezuma, 6.9 mi (11.1 km) northwest of Las Vegas, and at mile 74.4 (119.7 km).

DRAINAGE AREA.--84 mi² (220 km²), approximately.

PERIOD OF RECORD.--March to September 1915, June 1916 to current year. Monthly discharge only for some periods, published in WSP 1312. Prior to October 1964, published as Gallinas River near Montezuma.

REVISED RECORDS.--WSP 898: Drainage area. WSP 1562: 1951(P), 1952(M), 1955(P), 1957. WSP 1632: 1931-32, 1933(M), 1934, 1935(M), 1938, 1939-40(M), 1941-42, 1945, 1949-50(M).

GAGE.--Water-stage recorder. Altitude of gage is 6,875 ft (2,096 m), from topographic map. Prior to Sept. 21, 1934, at different datum.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 80 acres (32 hm²), 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--63 years, 19.4 ft³/s (0.549 m³/s) 14,060 acre-ft/yr (17.3 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,120 ft³/s (202 m³/s) Aug. 2, 1966, gage height, 9.7 ft (2.96 m), from floodmarks, from rating curve extended above 500 ft³/s (14 m³/s) on basis of slope-area measurements at gage heights 5.25 ft (1.600 m), 8.25 ft (2.515 m), and 9.7 ft (2.96 m); minimum, 0.20 ft³/s (0.006 m³/s), Oct. 6-9, 1922, Sept. 21, Oct. 9-14, 1956, Dec. 13, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--The greatest flood since about 1900 occurred the night of Sept. 29, 1904 (discharge not determined), from information by local residents and G. B. Monk's report on floods.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 200 ft³/s (5.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 25	0845	540	15.3	3.58	1.091	May 26	1730	870	24.6	4.10	1.250
May 20	2015	a*2150	60.9	5.50	1.676	June 8	1815	665	18.8	3.80	1.158
May 23	1545	1090	30.9	4.39	1.338						

a From rating curve extended above 300 ft³/s (8.5 m³/s) as explained above.

Minimum discharge, 1.5 ft³/s (0.042 m³/s) Oct. 13, 14, 15, 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.7	2.3	18	8.0	6.0	10	19	69	167	36	12	11
2	1.6	2.3	15	7.0	6.5	10	19	70	200	36	11	9.7
3	1.6	23	12	7.0	6.5	10	18	74	179	37	10	9.1
4	1.6	73	12	8.0	6.5	9.4	17	67	163	37	10	9.1
5	1.6	38	10	8.0	6.0	9.5	17	62	198	36	9.1	8.5
6	1.6	21	9.5	8.0	6.0	9.6	19	69	189	36	8.7	7.7
7	1.6	14	9.0	8.1	6.5	9.7	24	80	166	34	9.0	8.7
8	1.7	11	7.0	7.0	7.0	10	32	86	280	33	8.5	8.4
9	1.7	8.7	6.0	7.0	7.0	13	43	89	315	33	8.1	7.5
10	1.6	7.7	8.0	7.0	7.0	14	41	77	229	30	11	7.0
11	1.6	9.1	9.0	7.0	7.5	13	33	65	175	28	23	6.5
12	1.6	23	10	7.0	8.0	15	28	56	144	30	17	13
13	1.6	43	11	7.0	8.5	16	27	47	123	32	13	7.2
14	1.6	27	11	7.0	11	18	29	45	110	32	15	8.1
15	1.6	20	11	7.0	13	19	36	47	98	32	34	9.1
16	1.6	16	11	6.3	13	20	54	51	89	40	62	7.9
17	1.6	13	11	6.1	12	21	71	62	80	36	45	7.2
18	1.6	12	12	6.0	12	20	95	72	72	28	34	7.4
19	1.6	11	13	6.0	12	19	110	83	66	23	27	7.3
20	1.6	9.9	14	6.0	13	19	101	556	61	21	23	7.2
21	1.8	9.8	12	6.0	12	20	90	369	56	18	20	9.3
22	2.0	10	12	6.5	12	18	92	281	52	17	18	10
23	2.3	10	10	6.5	11	17	96	346	47	16	16	8.2
24	2.3	15	10	7.0	10	17	100	304	48	13	15	7.2
25	2.5	324	10	7.0	10	18	99	259	46	12	14	6.2
26	2.4	116	10	6.5	10	19	104	430	43	12	13	5.9
27	2.3	64	10	6.0	11	21	99	537	41	12	18	5.9
28	2.2	42	9.7	5.5	10	22	86	344	40	15	14	5.9
29	2.1	30	8.8	6.0	---	23	84	262	39	18	12	5.7
30	2.0	23	8.9	5.0	---	22	75	217	39	14	12	5.3
31	2.0	---	8.5	5.5	---	22	---	182	---	15	12	---
TOTAL	56.2	1028.8	329.4	208.0	261.0	504.2	1758	5358	3555	812	554.4	237.2
MEAN	1.81	34.3	10.6	6.71	9.32	16.3	58.6	173	119	26.2	17.9	7.91
MAX	2.5	324	18	8.1	13	23	110	556	315	40	62	13
MIN	1.6	2.3	6.0	5.0	6.0	9.4	17	45	39	12	8.1	5.3
AC-FT	111	2040	653	413	518	1000	3490	10630	7050	1610	1100	470

CAL YR 1978 TOTAL 3130.8 MEAN 8.58 MAX 324 MIN 1.3 AC-FT 6210
WTR YR 1979 TOTAL 14662.2 MEAN 40.2 MAX 556 MIN 1.6 AC-FT 29080

08382500 GALLINAS RIVER NEAR COLONIAS, NM

LOCATION.--35°10'55", long 104°53'59", Guadalupe County, Hydrologic Unit 13060001, in Anton Chico and Preston Beck Grants, on right bank 2.3 mi (3.7 km) south of San Miguel-Guadalupe County line, 2.4 mi (3.9 km) upstream from mouth, 5.8 mi (9.3 km) northwest of Colonias, and 9.0 mi (14.5 km) east of Dilia. Mouth at Pecos River mile 789.2 (1,269.8 km).

DRAINAGE AREA.--610 mi² (1,580 km²), approximately.

PERIOD OF RECORD.--January 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,944 ft (1,507 m) from topographic map.

REMARKS.--Records fair. Diversions for irrigation of about 7,000 acres (28 km²) 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--28 years, 16.4 ft³/s (0.464 m³/s), 11,880 acre-ft/yr (14.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,360 ft³/s (265 m³/s) June 16, 1963, gage height, 16.65 ft (5.075 m), from rating curve extended above 1,900 ft³/s (53.8 m³/s) on basis of slope-area measurements at gage heights 8.64 ft (2.633 m), 12.74 ft (3.883 m), 16.65 ft (5.075 m), and 27.2 ft (8.291 m); no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about June 1, 1937, reached a stage of about 27.2 ft (8.29 m); discharge determined as 26,700 ft³/s (756 m³/s) by slope-area measurement made in 1951. A flood of about the same magnitude occurred Sept. 29-30, 1904.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 4,340 ft³/s (123 m³/s) at 2200 hours Aug. 15, gage height, 11.34 ft (3.456 m) no other peak above base of 1,700 ft³/s (48 m³/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	14	1.1	3.7	4.4	1.5	5.7	21	4.8	9.5	3.7
2	.00	.00	11	.12	4.8	4.2	1.4	3.2	122	4.6	6.1	2.4
3	.00	12	9.1	.02	5.3	4.0	1.8	2.2	121	4.6	17	1.8
4	.00	179	7.7	2.4	4.0	3.8	1.7	3.2	50	4.6	13	1.6
5	.00	75	6.9	2.8	4.0	3.7	1.7	2.6	30	3.4	7.7	1.4
6	.00	29	6.1	3.7	4.2	3.7	1.6	2.1	26	117	4.4	1.1
7	.00	16	5.7	3.8	4.2	3.7	1.2	1.8	29	16	2.9	.89
8	.00	11	2.6	4.0	4.0	3.2	.75	1.6	22	4.6	2.8	.48
9	.00	6.6	1.4	2.8	4.6	3.1	.75	.82	192	3.8	2.8	.26
10	.00	5.3	2.0	3.8	4.4	3.2	1.6	.18	92	2.3	1.2	.11
11	.00	4.6	4.0	3.7	4.0	3.2	2.4	.06	43	1.8	211	.00
12	.00	5.3	3.1	4.4	4.2	3.2	2.8	.06	27	.82	26	.00
13	.00	5.5	5.3	4.4	4.6	3.1	2.9	.06	20	.26	10	.00
14	.00	8.8	4.8	3.4	5.5	2.3	2.0	.05	15	.14	7.2	.00
15	.00	11	5.3	5.3	5.9	2.3	1.5	.05	12	.10	623	.00
16	.00	11	5.0	4.8	8.5	2.3	1.1	.05	9.5	.10	607	.00
17	.00	7.7	4.0	3.8	11	2.4	.82	.05	6.9	2.3	369	.46
18	.00	5.7	4.6	4.4	8.3	2.6	.68	.05	5.7	2.3	67	1.7
19	.00	4.6	5.0	61	6.9	2.8	.52	.05	3.7	5.4	35	1.4
20	.00	4.2	3.8	46	5.7	3.1	.36	25	3.1	22	24	1.4
21	.00	3.2	4.0	22	5.0	3.7	.18	123	2.4	10	16	2.0
22	.00	2.9	4.2	16	5.3	3.8	.07	95	1.8	6.6	12	4.0
23	.00	2.4	4.4	10	5.5	3.5	.06	122	1.7	5.0	74	2.5
24	.00	2.4	4.2	7.2	5.9	3.4	.05	36	1.6	3.2	199	1.5
25	.00	2.0	3.4	8.0	5.9	2.9	.05	95	3.0	1.9	14	1.0
26	.00	65	3.1	7.7	5.3	2.8	.05	85	4.2	1.6	10	.80
27	.00	48	2.8	7.7	5.3	2.3	.05	40	6.7	1.1	8.5	.60
28	.00	25	3.4	3.5	4.8	2.1	.06	77	5.9	.82	6.6	.40
29	.00	22	3.5	3.4	---	1.9	.06	49	4.8	15	5.3	.20
30	.00	17	3.1	1.9	---	1.8	.67	24	5.7	41	4.6	.10
31	.00	---	2.1	2.4	---	1.6	---	21	---	24	4.2	---
TOTAL	.00	592.20	149.6	255.54	150.8	94.1	30.38	815.88	888.7	311.14	2400.8	31.80
MEAN	.000	19.7	4.83	8.24	5.39	3.04	1.01	26.3	29.6	10.0	77.4	1.06
MAX	.00	179	14	61	11	4.4	2.9	123	192	117	623	4.0
MIN	.00	.00	1.4	.02	3.7	1.6	.05	.05	1.6	.10	1.2	.00
AC-FT	.00	1170	297	507	299	187	60	1620	1760	617	4760	63

CAL YR 1978 TOTAL 915.12 MEAN 2.51 MAX 179 MIN .00 AC-FT 1820
WTR YR 1979 TOTAL 5720.94 MEAN 15.7 MAX 623 MIN .00 AC-FT 11350

08382600 PECOS RIVER ABOVE CAÑON DEL UTA NEAR COLONIAS, NM

LOCATION.--Lat 35°05'29", long 104°48'00", in T.10 N., R.20 E., Guadalupe County, Hydrologic Unit 13060001, in Anton Chico Grant, on right bank 0.4 mi (0.6 km) upstream from Cañon del Uta, 2.9 mi (4.7 km) southeast of Colonias, and at mile 775.8 (1,248.3 km).

DRAINAGE AREA.--2,330 mi^2 (6,030 km^2), approximately.

PERIOD OF RECORD.--January 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,800 ft (1,463 m), from U.S. Corps of Engineers plans.

REMARKS.--Records poor. Diversions and ground-water withdrawals for irrigation for about 11,800 acres (48 km^2), 1959 determination, above station; this includes the off channel Storrie Lake project on the Gallinas River above Las Vegas. Several observations of water temperature were made during the period.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,580 ft^3/s (158 m^3/s) Aug. 29, 1977, gage height 9.74 ft, from slope-area measurement of peak discharges; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,100 ft^3/s (87.8 m^3/s) at 2400 hours May 16, gage height, 8.80 ft (2.682 m), no other peak above base of 3,000 ft^3/s (85 m^3/s); no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	46	.00	.00	.00	35	455	1070	323	31	3.1
2	.00	.00	36	.00	.00	.00	32	455	1260	229	23	3.1
3	.00	25	19	.00	.00	.00	30	463	1190	200	27	3.1
4	.00	364	10	.00	.00	.00	28	396	1040	173	13	3.1
5	.00	132	3.0	.00	.00	.00	20	310	1030	158	2.8	2.8
6	.00	54	.00	.00	.00	.00	14	373	1070	256	2.8	2.8
7	.00	28	.00	.00	.00	.00	14	537	1190	192	2.8	2.5
8	.00	16	.00	.00	.00	.00	10	508	1220	59	2.8	2.5
9	.00	8.6	.00	.00	.00	.00	14	547	1610	37	2.8	2.8
10	.00	.10	.00	.00	.00	.00	140	527	1770	22	3.1	2.8
11	.00	.00	.00	.00	.00	.00	180	437	1330	14	57	2.8
12	.00	.72	.00	.00	.00	4.2	130	344	1170	9.1	40	2.8
13	.00	8.8	.00	.00	.00	14	113	291	1380	5.7	3.1	8.3
14	.00	11	.00	.00	.00	16	104	272	1290	3.8	1.9	27
15	.00	18	.00	.00	.00	24	72	336	1270	2.2	304	3.5
16	.00	19	.00	.00	.00	8.1	300	412	1200	3.8	626	2.8
17	.00	14	.00	.00	.00	30	595	1200	1170	4.7	870	2.8
18	.00	11	.00	.00	9.0	55	700	910	1080	14	276	2.8
19	.00	2.9	.00	.00	13	55	620	1000	994	23	124	2.5
20	.00	.00	.00	.00	7.4	54	560	1050	934	19	90	2.5
21	1.7	.00	.00	.00	8.3	53	500	1100	876	10	59	2.5
22	.59	.00	.00	.00	10	50	520	1160	729	10	34	2.4
23	.00	.00	.00	.00	5.5	45	540	994	675	5.1	178	3.6
24	.00	.00	.00	.00	8.7	35	600	946	595	5.1	295	1.6
25	.00	.00	.00	.00	.88	25	665	1190	625	3.1	21	1.6
26	.00	148	.00	.00	.00	20	645	1040	645	5.7	5.4	1.6
27	.00	234	.00	.00	.00	16	566	1100	480	8.7	4.7	1.6
28	.00	121	.00	.00	.00	22	527	1260	403	6.1	3.8	1.5
29	.00	75	.00	.00	---	35	547	1160	381	7.4	3.8	1.5
30	.00	49	.00	.00	---	40	480	1010	366	5.7	4.4	1.5
31	.00	---	.00	.00	---	38	---	1020	---	15	3.5	---
TOTAL	2.29	1340.12	114.00	.00	62.78	639.30	9301	22803	30043	1830.2	3115.7	105.8
MEAN	.074	44.7	3.68	.000	2.24	20.6	310	736	1001	59.0	101	3.53
MAX	1.7	364	46	.00	13	55	700	1260	1770	323	870	27
MIN	.00	.00	.00	.00	.00	.00	10	272	366	2.2	1.9	1.5
AC-FT	4.5	2660	226	.00	125	1270	18450	45230	59590	3630	6180	210

CAL YR 1978 TOTAL 6304.31 MEAN 17.3 MAX 1270 MIN .00 AC-FT 12500
WTR YR 1979 TOTAL 69357.19 MEAN 190 MAX 1770 MIN .00 AC-FT 137600

08382650 PECOS RIVER ABOVE LOS ESTEROS RESERVOIR, NM

LOCATION.--Lat 35°03'35", long 104°45'41", in NE¼SE¼SE¼ sec. 25, T.10, R.20 E., Guadalupe County, Hydrologic Unit 13060001, at south boundary Preston Beck Grant, on left bank, 1.6 mi (2.6 km) upstream from River Ranch, 5.8 miles (9.3 km) southeast of Colonias, 9.1 miles (14.6 km) northwest of Santa Rosa, and at mile 770.8 (1,240.2 km).

DRAINAGE AREA.--2,340 mi² (6,060 km²), approximately.

PERIOD OF RECORD.--February 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,760 ft (1,451 m), from surveys by U.S. Corps of Engineers.

REMARKS.--Records fair. Diversions and ground-water withdrawals for irrigation of about 11,800 acres (48 km²), 1959 determination. This includes the off channel Storrie Lake project on the Gallinas River above Las Vegas. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,130 ft³/s (259 m³/s) Aug. 29, 1977, gage height 14.08 ft (4.292 m), from rating curve extended above 5,000 ft³/s (142 m³/s), on basis of slope-area measurement of peak flow; minimum 3.0 ft³/s (0.085 m³/s) Jan. 30, 1979.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
May 20	1900	4,460	126	9.80	2.987
May 21	0830	3,510	99.4	8.90	2.713
July 7	0030	4,770	135	10.22	3.115
Aug. 15	2300	*5,520	156	10.92	3.328
Aug. 17	0030	3,550	101	9.10	2.774

Minimum discharge, 3.0 ft³/s (0.085 m³/s) Jan. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	6.5	6.5	46	5.0	6.2	6.8	29	429	1370	291	48	22
2	6.8	6.2	34	6.0	5.9	6.2	27	364	1580	240	56	21
3	6.8	60	17	6.0	5.9	6.2	26	375	1340	222	40	21
4	6.5	607	14	6.0	5.9	6.2	21	387	1190	202	51	21
5	6.8	181	8.7	7.0	6.2	6.2	14	321	1160	190	21	21
6	6.8	80	8.3	7.0	6.2	6.2	11	281	1230	289	21	22
7	6.8	46	7.1	7.0	5.6	6.2	11	296	1170	605	21	22
8	6.8	29	7.1	8.0	5.6	6.2	10	451	1190	190	21	21
9	6.8	16	7.0	8.0	5.6	6.5	14	549	1890	129	21	21
10	6.2	8.3	7.0	8.0	5.4	6.5	114	578	2020	93	22	21
11	6.2	8.7	7.0	8.0	5.4	6.8	168	415	1600	60	90	20
12	6.2	8.3	6.0	9.0	5.4	6.8	139	326	1310	42	104	21
13	5.9	7.9	6.0	10	5.1	9.2	112	262	1110	34	27	21
14	6.2	8.7	6.0	12	5.4	11	84	222	1040	29	21	46
15	6.5	21	6.0	14	5.4	18	60	210	1020	29	726	24
16	6.2	22	5.0	10	5.9	31	83	240	963	28	1320	21
17	6.2	13	5.0	7.0	7.4	42	172	248	936	29	1440	20
18	6.2	7.9	5.0	6.5	12	46	258	311	837	48	274	21
19	6.2	6.5	5.0	5.9	16	50	464	359	776	67	168	21
20	5.9	6.8	5.0	24	8.7	46	608	1200	701	59	126	21
21	6.5	7.1	6.0	7.5	7.9	51	556	1850	585	44	95	21
22	7.1	6.2	6.0	6.5	13	44	480	1300	448	33	62	21
23	7.9	6.8	6.0	5.9	12	35	487	1310	411	23	58	22
24	7.1	7.1	6.0	6.2	12	27	542	1220	364	21	388	20
25	6.5	79	6.0	6.2	6.8	18	608	1460	385	21	59	20
26	6.5	294	5.0	6.8	5.6	13	669	1370	445	22	27	20
27	6.2	176	5.0	6.5	6.5	12	669	1520	370	22	26	20
28	6.2	115	5.0	6.8	6.8	17	592	1580	316	23	23	20
29	6.2	75	5.0	6.8	---	27	494	1440	296	22	23	20
30	6.2	64	5.0	6.5	---	34	572	1410	291	22	23	19
31	6.5	---	5.0	6.2	---	33	---	1390	---	33	23	---
TOTAL	201.4	1981.0	272.2	246.3	205.8	641.0	8094	23674	28344	3162	5425	652
MEAN	6.50	66.0	8.78	7.95	7.35	20.7	270	764	945	102	175	21.7
MAX	7.9	607	46	24	16	51	669	1850	2020	605	1440	46
MIN	5.9	6.2	5.0	5.0	5.1	6.2	10	210	291	21	21	19
AC-FT	399	3930	540	489	408	1270	16050	46960	56220	6270	10760	1290

CAL YR 1978 TOTAL 11089.5 MEAN 30.4 MAX 1240 MIN 4.5 AC-FT 22000
WTR YR 1979 TOTAL 72898.7 MEAN 200 MAX 2020 MIN 5.0 AC-FT 144600

08382730 LOS ESTEROS CREEK ABOVE LOS ESTEROS RESERVOIR, NM

LOCATION.--Lat 35°05'42", long 104°39'49", Guadalupe County, Hydrologic Unit 13060001 in Preston-Beck Grant, on left bank, 3.7 mi (6.0 km) upstream from mouth, 4.9 mi (7.9 km) north-northeast of Los Esteros Reservoir damsite, and 10.4 mi (16.7 km) north-northeast of Santa Rosa. Mouth at Pecos River mile 763.0 (1,227.7 km).

DRAINAGE AREA.--65.6 mi^2 (169.9 km^2).

PERIOD OF RECORD.--July 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,767 ft (1,453 m), from topographic map.

REMARKS.--Records fair. No known diversions or groundwater withdrawals for irrigation above station. Several observations of water temperature were made during the period.

AVERAGE DISCHARGE.--6 years, 1.92 ft^3/s (0.054 m^3/s), 1,390 acre-ft/yr (1.71 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,900 ft^3/s (110 m^3/s) July 24, 1976, gage height 9.3 ft (2.83 m) from rating curve extended above 20 ft^3/s (0.57 m^3/s) on basis of area-velocity studies, and slope-area measurements at gage heights 6.5 ft (1.98 m) and 9.3 ft (2.83 m); no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood of unknown date reached a discharge of about 6,800 ft^3/s (193 m^3/s), gage height 11.6 ft (3.54 m), from floodmarks, from rating curve extended as explained above.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft^3/s (2.8 m^3/s) and maximum (*):

Date	Time	Discharge		Gage height	
		(ft^3/s)	(m^3/s)	(ft)	(m)
Nov. 4	0230	175	4.956	3.50	1.067
June 2	0900	*221	6.259	3.71	1.131

No flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.01	.00	.00	.00	.00	3.6	.00	.00	.00
2	.00	.00	.00	.01	.00	.00	.00	.00	59	.00	.00	.00
3	.00	29	.00	.01	.00	.00	.00	.00	5.6	.00	.00	.00
4	.00	37	.00	.01	.00	.00	.00	.00	.50	.00	.00	.00
5	.00	1.1	.00	.01	.00	.00	.00	.00	.14	.00	.00	.00
6	.00	.24	.00	.01	.00	.00	.00	.00	.06	.00	.00	.00
7	.00	.09	.00	.01	.00	.00	.00	.00	.02	.00	.00	.00
8	.00	.04	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.01	.00	.00	.00	.00	.01	.00	.00	.00
10	.00	.00	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.01	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.04	.01	.00	.00	.00	.00	.00	.00	5.1	.00	.00
16	.00	.05	.01	.00	.00	.00	.00	.00	.00	4.4	.00	.00
17	.00	.04	.01	.00	.00	.00	.00	.00	.00	3.4	.00	.00
18	.00	.02	.01	.00	.00	.00	.00	.00	.00	1.4	.00	.00
19	.00	.00	.01	.00	.00	.00	.00	.00	.00	.11	.00	.00
20	.00	.00	.01	.00	.00	.00	.00	.00	.00	.02	.00	.00
21	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.01	.00	.00	.00	.00	.00	.00	.21	.00	.00
23	.00	.00	.01	.00	.00	.00	.00	.00	.00	1.7	.00	.00
24	.00	.01	.01	.00	.00	.00	.00	.00	.00	.07	.00	.00
25	.00	.07	.01	.00	.00	.00	.00	.00	.00	.01	.00	.00
26	.00	.04	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.02	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.01	.01	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.01	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.01	.00	---	.00	---	7.0	---	.00	.00	---
TOTAL	.00	67.82	.22	.10	.00	.00	.00	7.00	68.93	16.42	.00	.00
MEAN	.000	2.26	.007	.003	.000	.000	.000	.23	2.30	.53	.000	.000
MAX	.00	37	.01	.01	.00	.00	.00	7.0	59	5.1	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	135	.4	.2	.00	.00	.00	14	137	33	.00	.00

CAL YR 1978 TOTAL 443.47 MEAN 1.21 MAX 273 MIN .00 AC-FT 880
WTR YR 1979 TOTAL 160.49 MEAN .44 MAX 59 MIN .00 AC-FT 318

08382760 LOS ESTEROS CREEK TRIBUTARY ABOVE LOS ESTEROS RESERVOIR, NM

LOCATION.--Lat 35°05'35", long 104°40'20", Preston-Beck Grant, Guadalupe County, Hydrologic Unit 13060001, 0.5 (0.8 km) mile west-southwest of Los Esteros Creek gage, 0.8 mi (1.3 km) above confluence with Los Esteros Creek, 4.6 mi (7.4 km) north-northeast of Los Esteros Reservoir damsite, and 10.2 mi (16.4 km) north-northeast of Santa Rosa.

DRAINAGE AREA.--13.7 mi^2 (22.0 km^2).

PERIOD OF RECORD.--July 1973 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,758 ft (1,450 m), from topographic map.

REMARKS.--Records poor. No known diversions or groundwater withdrawals for irrigation above station. Several observation of water temperature were made during the period.

AVERAGE DISCHARGE.--6 years, 0.52 ft^3/s (0.015 m^3/s), 377 acre-ft/yr (465,000 m^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,400 ft^3/s (210 m^3/s) Aug. 29, 1977, gage height, 7.80 ft (2.377 m) from rating curve extended above 0.5 ft^3/s (.014 m^3/s) on basis of area-velocity studies, and slope-area measurement at gage height 7.8 ft (2.38 m); no flow most of the time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 121 ft^3/s (3.427 m^3/s) at 1930 hours July 15, gage height, 2.13 ft (0.649 m) no other peak above base of 80 ft^3/s (2.3 m^3/s); no flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.8	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.19	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.36	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	6.39	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.21	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	5.8	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	13	.00	.00

CAL YR 1978 TOTAL 3.07 MEAN .008 MAX 1.7 MIN .00 AC-FT 6.1
WTR YR 1979 TOTAL 6.39 MEAN .018 MAX 5.8 MIN .00 AC-FT 13

08383000 PECOS RIVER AT SANTA ROSA, NM

LOCATION.--Lat 34°56'36", long 104°41'55", in NW¼SE¼ sec.3, T.8 N., R.21 E., Guadalupe County, Hydrologic Unit 13060001, on left bank, 0.4 mi (0.6 km) downstream from bridge on U.S. Highway I-40, 0.6 mi (1.0 km) upstream from bridge on U.S. Highway I-40 Business in Santa Rosa, 1.9 mi (3.1 km) upstream from El Rito Creek, and at mile 748.4 (1,204.2 km). Water-quality sampling site 0.7 mi (1.1 km) downstream.

DRAINAGE AREA.--2,650 mi² (6,860 km²), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1903 to December 1905 (gage heights only), January to December 1906, February 1910 to July 1911, September 1912 to December 1924, March to May 1927, July 1927, January 1928 to current year. Monthly discharge only for some periods, published in WSP 1312. Figures of daily discharge for Apr. 5-20, May 4-7, 11, Aug. 13, 16-18, 24, Sept. 7-9, 11, 13, 19, 21, 23, 25, 27, Oct. 1-31, Nov. 3, 4, 9, 11, 20, 22, 1910, and Feb. 1 to Mar. 31, June 1 to July 31, 1911, published in WSP 358 are unreliable and should not be used.

REVISED RECORDS.--WSP 1512: 1913-15. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4,537.56 ft (1,383.048 m) National Geodetic Vertical Datum of 1929. For history of changes prior to Sept. 13, 1967, see WSP 2123.

REMARKS.--Water-discharge records poor. Diversions for irrigation of about 12,000 acres (49 km²), 1959 determination, above station.

AVERAGE DISCHARGE.--63 years (1906, 1913-24, 1928-79), 135 ft³/s (3.823 m³/s), 97,810 acre-ft/yr (121 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,200 ft³/s (1,560 m³/s) June 2, 1937, gage height, 25.7 ft (7.83 m), site and datum then in use, from rating curve extended above 32,000 ft³/s (906 m³/s); minimum 0.28 ft³/s (0.008 m³/s) Jan. 7, 1971.

The flood of June 2, 1937, is the greatest since about 1886. Flood of Sept. 30, 1904, reached a stage of 24.7 ft (7.53 m), site and datum then in use, discharge, 45,000 ft³/s (1,290 m³/s), by Kutter's formula. Flood of June 9, 1903, reached a stage of 21.1 ft (6.43 m), same site and datum as in 1904, discharge, 34,000 ft³/s (963 m³/s), by comparison with 1904 flood.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,310 ft³/s (65.4 m³/s) Aug. 16, gage height, 3.49 ft (1.064 m), no peak above base of 4,000 ft³/s (110 m³/s); minimum discharge 4.2 ft³/s (0.119 m³/s) Jan 12-17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.1	14	101	14	11	10	40	502	1350	312	37	24
2	7.3	14	85	14	11	10	35	429	1500	281	67	22
3	7.3	90	64	14	11	9.0	35	401	1570	237	46	22
4	7.3	570	44	14	11	9.0	35	429	1260	216	58	20
5	7.3	240	31	14	11	9.0	30	388	1110	202	41	17
6	7.3	116	22	14	11	9.0	25	324	1210	192	25	24
7	8.1	66	10	14	11	9.0	20	299	1260	704	20	24
8	8.1	33	10	15	11	9.0	20	415	1210	242	20	24
9	7.3	22	9.0	15	11	8.1	20	517	1440	156	19	24
10	7.3	20	10	15	11	8.1	20	563	1870	112	20	24
11	7.3	22	12	15	11	10	182	509	1840	88	20	27
12	8.1	22	14	14	11	9.0	151	415	1450	64	105	24
13	9.0	17	14	14	11	7.3	119	342	1110	51	64	22
14	9.0	14	14	14	12	9.0	94	259	990	41	33	29
15	9.0	16	16	13	12	12	75	211	930	179	31	46
16	9.0	37	16	13	14	24	58	242	882	500	1540	29
17	9.0	41	14	12	14	44	94	287	864	160	1450	25
18	9.0	31	16	12	20	51	192	312	774	110	515	21
19	10	24	16	12	25	55	281	401	729	90	237	21
20	10	17	14	12	29	60	535	616	678	210	151	14
21	10	16	12	12	20	70	517	1790	595	600	116	17
22	10	14	10	12	17	65	487	1480	502	200	78	20
23	12	14	12	12	22	60	479	1230	458	100	51	24
24	16	14	12	12	24	50	509	1250	408	90	242	35
25	14	17	12	12	24	40	532	1360	382	80	183	24
26	14	25	12	12	17	40	595	1450	458	70	48	19
27	14	436	12	12	12	30	622	1350	382	70	31	22
28	14	287	12	12	12	25	595	1590	355	50	27	19
29	14	187	14	12	---	25	509	1560	324	40	24	19
30	14	123	14	12	---	25	517	1450	305	30	22	19
31	14	---	14	12	---	30	---	1440	---	25	27	---
TOTAL	310.8	2559	668.0	406	417	831.5	7423	23811	28196	5502	5348	701
MEAN	10.0	85.3	21.5	13.1	14.9	26.8	247	768	940	177	173	23.4
MAX	16	570	101	15	29	70	622	1790	1870	704	1540	46
MIN	7.3	14	9.0	12	11	7.3	20	211	305	25	19	14
AC-FT	616	5080	1320	805	827	1650	14720	47230	55930	10910	10610	1390

CAL YR 1978 TOTAL 14471.7 MEAN 39.6 MAX 1090 MIN 4.7 AC-FT 28700
WTR YR 1979 TOTAL 76173.3 MEAN 209 MAX 1870 MIN 7.3 AC-FT 151100

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 0.6 mi (1.0 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1905-07, 1959 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1964 to current year.
WATER TEMPERATURES: October 1958 to current year.
SUSPENDED SEDIMENT DISCHARGE: October 1958 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,500 micromhos Jan. 18, 1974; minimum daily, 173 micromhos May 22, 1973.
WATER TEMPERATURES: Maximum, 38.0°C May 11, 1970; minimum, 0.0°C on several days during winter periods.
SEDIMENT CONCENTRATIONS: Maximum daily, 31,400 mg/L Aug. 18, 1961; minimum daily, 3 mg/L Apr. 30, 1972, Mar. 1, 15, 25, 1978.
SEDIMENT LOADS: Maximum daily, 344,000 tons (312,000 tonnes) July 30, 1971; minimum daily, .06 ton (.05 tonne) Mar. 15, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,300 micromhos Jan. 31; minimum daily, 195 micromhos June 9.
WATER TEMPERATURES: Maximum, 28.0°C Aug. 15; minimum, 0.0°C Dec. 7, 9, Jan. 1.
SEDIMENT CONCENTRATIONS: Maximum daily, 10,900 mg/L Nov. 4; minimum daily, 6 mg/L Feb. 14.
SEDIMENT LOADS: Maximum daily, 49,400 tons (44,800 tonnes) May 21; minimum daily, .19 ton (.17 tonne) Feb. 14.

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)
NOV									
04...	1655	864	11.0	15700	36600	43	53	79	92
05...	1720	240	10.0	7130	4620	51	67	83	90
27...	0740	465	5.0	7070	8880	54	63	90	98
29...	1500	173	8.5	2640	1230	19	26	33	35
FEB									
03...	1335	11	10.0	165	4.9	--	--	--	--
MAR									
21...	1700	70	13.0	337	64	--	--	--	--
APR									
11...	1445	137	11.0	3060	1130	28	40	64	70
18...	1640	190	21.0	1430	734	37	54	81	--
27...	0700	680	14.0	1270	2330	28	37	53	--
MAY									
09...	0730	520	12.0	1190	1670	17	22	32	79
21...	1555	1980	14.5	10300	55100	42	55	84	96
22...	0715	1680	14.0	5560	25200	51	63	88	96
30...	0705	1500	17.0	795	3220	45	60	80	--
JUN									
10...	0920	1920	15.0	1450	7520	63	75	88	--
16...	0705	980	19.0	1210	3200	25	31	43	--
JUL									
08...	0900	276	21.0	2310	1720	27	27	50	88
AUG									
17...	0710	1680	20.0	9980	45300	37	42	59	72
18...	0740	560	19.0	12100	18300	41	51	72	98
SEP									
25...	0735	22	15.0	399	24	70	84	--	100

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
NOV								
04...	93	97	100	--	--	--	--	--
05...	91	96	100	--	--	--	--	--
27...	99	100	--	--	--	--	--	--
29...	36	42	65	100	--	--	--	--
FEB								
03...	--	--	--	--	98	99	100	--
MAR								
21...	--	--	--	--	99	99	100	--
APR								
11...	71	78	93	100	--	--	--	--
18...	--	--	--	--	99	100	--	--
27...	--	--	--	--	92	94	98	100
MAY								
09...	94	99	100	--	--	--	--	--
21...	99	100	--	--	--	--	--	--
22...	98	100	--	--	--	--	--	--
30...	--	--	--	--	93	96	98	100
JUN								
10...	--	--	--	--	96	98	99	100
16...	--	--	--	--	97	99	99	100
JUL								
08...	100	--	--	--	--	--	--	--
AUG								
17...	94	97	99	100	--	--	--	--
18...	100	--	--	--	--	--	--	--
SEP								
25...	--	--	--	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1630	1700	662	2060	2240	1910	1090	239	204	315	1160	1160
2	1620	1620	722	1960	1910	1960	1140	255	199	329	1200	1280
3	1720	1640	820	2080	1960	2020	1160	300	205	356	850	1320
4	1720	480	1090	2010	2190	2070	1210	273	233	370	1220	1200
5	1730	299	1230	1840	2090	1980	1240	280	228	392	910	1350
6	1700	388	1450	1930	2040	2150	1400	304	220	404	1240	1300
7	1700	579	2170	1900	1980	2040	1800	340	209	238	1300	1310
8	1640	738	2150	1860	2010	2000	1830	306	211	327	1350	1280
9	1670	949	1670	1960	2010	2130	---	268	195	418	1350	1310
10	1680	1120	1920	1960	2030	2000	1750	240	269	516	1350	1360
11	1700	1220	1860	1980	2090	1920	650	228	200	571	1320	1340
12	1710	1240	1840	1860	2050	1980	460	275	218	703	850	1330
13	1740	1380	1850	1760	2040	2040	498	328	224	920	640	1400
14	1720	1460	1660	2180	2100	2070	510	383	217	1040	1050	1400
15	1660	1430	1820	2220	2230	2030	719	395	218	1100	1280	974
16	1640	1250	1650	1800	2130	1770	869	383	215	490	265	1240
17	1700	966	1630	1860	1930	1320	746	351	214	970	421	1340
18	1720	1060	2020	1750	1910	1040	418	335	218	1000	403	1410
19	1750	1250	1720	1770	1810	990	329	305	221	850	423	1310
20	1700	1380	1820	1820	1570	960	284	257	224	740	488	1470
21	1650	1520	2150	1550	1600	870	253	199	236	750	553	1180
22	1660	1530	2100	1580	1750	860	240	249	271	940	650	1210
23	1480	1570	1880	1760	1740	910	255	237	283	700	850	1140
24	1380	1540	1890	2170	1580	1080	251	220	280	1110	965	1340
25	1460	1460	1910	1840	1640	1200	242	210	264	1230	455	1350
26	1520	1490	1980	1800	1700	1370	229	243	296	1250	765	1340
27	1590	404	2140	1940	1890	1560	229	221	299	1230	1070	1360
28	1610	391	2070	2180	1880	1640	226	198	294	1270	1100	1310
29	1620	408	1950	2090	---	1640	244	211	322	1300	1200	1350
30	1620	495	1830	2130	---	1370	254	205	321	1300	1260	1370
31	1680	---	2090	2300	---	1110	---	205	---	1290	805	---
MEAN	1650	1100	1730	1930	1930	1610	708	272	240	788	927	1300

WTR YR 1979 MEAN 1180 MAX 2300 MIN 195

08383000 PECOS RIVER AT SANTA ROSA, NM -- Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	12.0	5.0	.0	3.0	5.0	10.0	13.0	12.5	25.0	19.0	19.0
2	14.5	10.5	5.0	1.0	2.0	8.0	7.0	14.0	13.0	20.0	19.0	19.0
3	15.0	14.0	4.0	3.0	10.0	6.5	7.0	14.0	15.0	20.0	18.0	18.0
4	15.0	8.5	1.0	7.0	3.0	11.0	5.0	10.5	18.5	19.0	20.0	18.0
5	13.5	10.0	4.0	4.0	1.5	3.0	7.0	13.0	17.0	20.0	23.0	18.0
6	14.0	9.5	1.0	2.5	3.5	4.5	10.0	22.0	15.0	20.0	18.5	18.0
7	14.5	8.0	.0	1.5	1.5	5.0	8.0	15.0	17.0	17.0	19.0	18.0
8	24.0	8.5	1.0	4.0	2.5	8.0	10.0	15.0	18.0	21.0	18.5	19.0
9	23.0	9.0	.0	2.0	2.0	7.0	---	12.0	14.0	21.0	19.0	18.0
10	16.0	10.0	5.0	5.0	3.0	7.0	9.0	11.0	15.0	21.5	20.0	17.0
11	14.5	5.5	1.0	2.5	7.0	11.0	6.0	10.0	15.0	21.0	18.0	16.0
12	13.0	11.0	1.0	5.0	5.0	5.0	6.0	13.0	16.0	20.0	19.0	16.0
13	12.0	6.0	6.0	3.0	7.0	9.0	5.5	15.0	17.0	21.0	19.0	15.0
14	10.0	7.0	1.0	9.0	5.5	7.0	10.0	17.0	18.0	23.0	20.0	15.0
15	14.0	5.0	2.0	5.0	7.0	8.0	21.0	16.0	18.0	25.0	28.0	13.0
16	10.5	5.0	4.5	8.0	4.0	10.0	13.0	16.0	19.0	20.0	21.0	14.0
17	11.0	4.0	5.5	9.0	5.0	9.0	15.0	17.0	19.0	21.0	23.0	14.0
18	10.5	5.0	6.0	8.5	6.0	10.0	17.0	17.5	18.0	20.0	23.0	15.0
19	11.0	7.0	7.0	4.0	6.0	5.0	15.0	19.0	17.0	19.5	20.0	15.0
20	10.0	9.0	4.0	5.0	6.0	8.0	14.0	18.0	16.0	20.0	20.0	14.0
21	18.0	9.0	2.5	2.0	6.0	13.0	15.0	12.0	18.0	21.0	18.0	17.0
22	18.0	9.0	4.0	4.0	5.0	7.0	17.0	14.0	21.0	23.0	19.0	18.0
23	8.0	9.0	3.0	1.0	3.0	6.0	15.0	13.0	21.0	21.0	19.0	18.0
24	10.0	10.0	3.0	1.5	3.5	6.0	15.0	15.0	21.0	21.0	18.0	17.0
25	9.0	11.0	4.0	5.0	7.0	12.0	14.0	16.0	21.0	21.0	19.0	16.0
26	9.0	9.0	1.5	5.0	5.0	7.0	15.0	15.0	22.0	20.0	20.0	16.0
27	7.5	5.0	1.0	2.5	5.0	8.0	14.0	15.5	21.0	21.0	17.0	17.0
28	8.0	3.0	3.0	2.5	9.0	9.0	13.0	15.0	21.0	22.5	18.0	18.0
29	9.0	3.0	6.0	1.0	---	12.0	15.0	17.0	23.0	20.0	17.5	17.0
30	9.0	5.0	3.0	2.5	---	7.0	14.0	17.0	23.0	20.0	18.0	16.0
31	11.0	---	1.0	2.0	---	8.0	---	16.0	---	19.0	19.0	---
MEAN	13.0	8.0	3.0	4.0	5.0	8.0	12.0	15.0	18.0	21.0	19.5	16.5

WTR YR 1979 MEAN 12.0 MAX 28.0 MIN .0

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	53	1.2	58	2.2	408	111	19	.72	47	1.4	20	.54
2	50	.99	38	1.4	288	66	32	1.2	65	1.9	24	.65
3	45	.89	1550	841	179	31	23	.87	165	4.9	14	.34
4	46	.91	10900	23800	109	13	28	1.1	39	1.2	16	.39
5	43	.85	8520	5520	78	6.5	16	.60	57	1.7	34	.83
6	47	.93	3350	1050	84	5.0	10	.38	33	.98	15	.36
7	53	1.2	1370	244	112	3.0	9	.34	56	1.7	14	.34
8	40	.87	455	41	158	4.3	15	.61	87	2.6	13	.32
9	37	.73	219	13	111	2.7	8	.32	49	1.5	20	.44
10	39	.77	1470	79	80	2.2	39	1.6	39	1.2	14	.31
11	34	.67	276	16	48	1.6	30	1.2	16	.48	13	.35
12	34	.74	130	7.7	76	2.[illegible]	47	1.8	12	.36	15	.36
13	35	.85	99	4.5	63	2.4	17	.64	9	.27	13	.26
14	33	.80	90	3.4	48	1.8	12	.45	6	.19	16	.39
15	42	1.0	118	5.1	61	2.6	12	.42	12	.39	20	.65
16	48	1.2	209	21	57	2.5	16	.56	27	1.0	69	4.5
17	41	1.0	180	20	64	2.4	16	.52	36	1.4	198	24
18	46	1.1	103	8.6	51	2.2	29	.94	42	2.3	305	42
19	36	.97	80	5.2	59	2.5	42	1.4	48	3.2	362	54
20	42	1.1	63	2.9	56	2.1	23	.75	79	6.2	390	63
21	45	1.2	54	2.3	65	2.1	124	4.0	54	2.9	337	64
22	76	2.1	57	2.2	33	.89	73	2.4	36	1.7	384	67
23	81	2.6	58	2.2	32	1.0	43	1.4	52	3.1	309	50
24	81	3.5	65	2.5	48	1.6	38	1.2	52	3.4	170	23
25	58	2.2	74	3.4	31	1.0	50	1.6	45	2.9	129	14
26	45	1.7	292	153	25	.81	33	1.1	30	1.4	90	9.7
27	47	1.8	5910	6960	72	2.3	28	.91	29	.94	50	4.1
28	48	1.8	2140	1660	30	.97	40	1.3	52	1.7	54	3.6
29	44	1.7	1070	540	35	1.3	24	.78	---	---	70	4.7
30	46	1.7	620	206	32	1.2	53	1.7	---	---	128	8.6
31	44	1.7	---	---	207	7.8	32	1.0	---	---	174	14
TOTAL	---	40.77	---	41217.6	---	288.67	---	33.81	---	52.91	---	456.73

08383000 PECOS RIVER AT SANTA ROSA, Nh -- Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	174	19	1350	1830	860	3130	1680	1420	143	14	139	9.0
2	132	12	973	1130	1080	4370	1500	1140	1770	427	118	7.0
3	109	10	857	928	1780	7550	1190	761	1680	209	117	6.9
4	97	9.2	855	990	847	2880	1190	694	2470	476	105	5.7
5	77	6.2	740	775	955	2860	1190	649	2760	306	89	4.1
6	63	4.3	593	519	825	2700	1320	684	875	59	111	7.2
7	50	2.7	619	500	702	2390	6830	20400	388	21	114	7.4
8	45	2.4	1080	1210	679	2220	2100	1370	277	15	103	6.7
9	43	2.3	1220	1700	983	3820	910	383	259	13	145	9.4
10	42	2.3	1320	2010	1440	7270	918	278	186	10	133	8.6
11	2490	1220	1030	1420	956	4750	519	123	180	9.7	133	9.7
12	1560	636	830	930	1360	5320	248	43	7040	2350	118	7.6
13	932	299	611	564	1680	5030	208	29	2580	446	109	6.5
14	838	213	520	364	1280	3420	155	17	4330	386	597	47
15	433	88	503	287	1050	2640	928	2690	1100	92	1850	230
16	213	33	480	314	1200	2860	1950	2630	7740	39100	445	35
17	1030	261	611	473	1160	2710	517	223	7210	30700	285	19
18	1470	762	769	648	1100	2300	355	105	8950	12400	292	17
19	1850	1400	1130	1220	1000	1970	600	146	3410	2180	263	15
20	2830	4380	1940	3710	1090	2000	1290	731	1860	781	101	3.8
21	2050	2860	10200	49400	1200	1930	1040	1680	710	222	108	5.0
22	1560	2050	4100	16400	998	1350	688	372	422	89	147	7.9
23	1400	1810	2080	6910	1400	1730	760	205	364	50	115	7.5
24	1310	1800	1840	6210	1600	1760	199	48	528	479	263	55
25	1310	1880	2080	7640	1290	1330	144	31	650	321	365	24
26	1310	2100	2580	10100	2190	2710	131	25	1320	171	270	14
27	1260	2120	1150	4190	2050	2110	127	24	468	39	470	28
28	1190	1910	1210	5190	1710	1640	103	14	240	17	191	9.8
29	1070	1470	980	4130	1570	1370	100	11	183	12	149	7.6
30	1090	1520	825	3230	1230	1010	89	7.2	154	9.1	113	5.8
31	---	---	910	3540	---	---	79	5.3	544	40	---	---
TOTAL	---	28882.4	---	138462	---	89130	---	36938.5	---	91443.8	---	627.2

TOTAL LOAD FOR YEAR: 427574.39 TONS.

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM
(Surveillance program station)

LOCATION.--Lat 34°43'48", long 104°31'28", in NE¼SE¼NW¼ sec.20, T.6 N., R.23 E., Guadalupe County, Hydrologic Unit 13060001, on left bank 9 mi (14.5 km) southeast of Puerto de Luna, 17.5 mi (28.2 km) upstream from Sumner Dam, and at mile 719.5 (1,157.7 km).

DRAINAGE AREA.--3,970 mi² (10,280 km²), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1938 to current year.

REVISED RECORDS.--WSP 1512: 1939.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,311.34 ft (1,314.096 m) National Geodetic Vertical Datum of 1929. Prior to Apr. 15, 1954, at datum 1 ft (0.30 m) higher.

REMARKS.--Water-discharge records good. Diversions for irrigation of about 12,500 acres (51 km²), 1959 determination, above station. Discharge represents inflow to Lake Sumner.

AVERAGE DISCHARGE.--41 years, 209 ft³/s (5.919 m³/s), 151,400 acre-ft/yr (187 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,600 ft³/s (1,380 m³/s) Sept. 1, 1942, gage height, 17.00 ft (5.182 m), from rating curve extended above 7,400 ft³/s (210 m³/s) on basis of flow at Santa Rosa; minimum, 11 ft³/s (0.31 m³/s) Jan. 31, 1951.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood since at least 1886 occurred June 2, 1937, when peak at Santa Rosa was 55,200 ft³/s (1,560 m³/s) and peak inflow to Lake Sumner was about 75,000 ft³/s (2,120 m³/s). Flood of July 24, 1895, was reported as "highest in 10 years." Other major floods occurred on June 9, 1903, Sept. 30, 1904, and May 1, 1914.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,290 ft³/s (206 m³/s) at 0100 hours July 26, gage height, 6.13 ft (1.868 m), no other peak above base of 5,500 ft³/s (160 m³/s); minimum discharge 51 ft³/s (1.44 m³/s) Aug. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	74	171	97	99	86	94	596	1830	363	74	99
2	69	74	156	97	92	84	92	503	1880	356	72	94
3	68	170	142	99	92	83	91	459	1850	313	101	88
4	68	702	124	99	90	82	92	492	1530	292	72	90
5	67	492	110	99	88	82	88	447	1360	263	86	88
6	67	285	100	99	92	83	82	389	1300	261	66	84
7	67	203	103	99	88	84	78	353	1380	582	54	96
8	67	135	97	102	86	87	73	419	1320	332	54	94
9	65	118	84	95	88	86	74	522	1440	229	52	91
10	65	104	69	89	88	88	72	570	2080	171	57	87
11	65	118	62	109	88	88	122	553	2140	145	57	81
12	63	111	74	108	86	86	201	453	1860	118	59	85
13	64	104	88	108	86	84	174	388	1290	105	140	88
14	64	94	92	104	82	82	153	321	1100	101	96	106
15	66	94	92	103	82	82	140	282	1050	119	80	118
16	66	101	92	107	83	84	127	265	1000	460	1380	118
17	66	111	92	106	89	93	127	303	966	182	1450	106
18	66	113	92	113	87	108	242	296	886	158	860	106
19	66	103	92	113	89	112	408	376	828	158	408	104
20	66	97	90	104	96	119	572	485	765	156	290	99
21	66	95	88	99	97	129	681	1610	676	548	232	116
22	69	95	86	114	91	123	600	1710	577	232	189	111
23	74	93	90	99	89	115	572	1290	535	130	146	101
24	84	94	90	99	94	108	596	1320	503	113	121	99
25	80	100	90	96	94	99	628	1400	474	87	385	111
26	78	97	92	101	91	90	664	1670	473	1070	200	94
27	76	780	92	101	88	87	685	1480	478	107	290	92
28	74	490	90	99	85	81	679	1670	438	97	138	90
29	74	290	94	94	---	79	598	1720	410	84	104	86
30	74	212	94	94	---	80	588	1620	385	96	94	86
31	74	---	96	94	---	88	---	1700	---	84	92	---
TOTAL	2147	5749	3024	3140	2500	2862	9393	25662	32804	7512	7499	2908
MEAN	69.3	192	97.5	101	89.3	92.3	313	828	1093	242	242	96.9
MAX	84	780	171	114	99	129	685	1720	2140	1070	1450	118
MIN	63	74	62	89	82	79	72	265	385	84	52	81
AC-FT	4260	11400	6000	6230	4960	5680	18630	50900	65070	14900	14870	5770

CAL YR 1978 TOTAL 44296 MEAN 121 MAX 1690 MIN 41 AC-FT 87860
WTR YR 1979 TOTAL 105200 MEAN 288 MAX 2140 MIN 52 AC-FT 208700

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1939-41, 1943, 1947-59, 1968 to current year.

REMARKS.--Prior to 1968 Water Year published as 8-3834, Pecos River at Puerto de Luna, N. Mex., which was located at bridge in the village of Puerto de Luna, 9 mi (14.5 km) northwest of the discharge station.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (NTU) (00076)	HARD-NESS (MG/L AS (MG/L) (00300)	HARD-NESS, NONCAR-BONATE (MG/L (MG/L) (00340)	CALCIUM DIS-SOLVED (MG/L CACO3) (00900)	MAGNE-SIUM, DIS-SOLVED (MG/L CACO3) (00902)	SODIUM, DIS-SOLVED (MG/L AS CA) (00915)
NOV												
02...	1000	74	2940	8.2	24.5	15.5	5.0	9.7	12	1600	1500	540
30...	0920	215	1400	8.2	9.5	4.5	560	11.3	52	730	630	240
DEC												
21...	0845	88	3060	8.3	9.0	.0	35	13.4	16	1600	1500	520
FEB												
01...	0925	101	2400	8.4	2.0	1.0	10	--	12	1500	1400	500
MAR												
01...	1145	86	3000	8.3	16.0	12.0	9.9	11.4	5	1500	1400	500
APR												
12...	0845	228	1700	8.0	9.0	6.0	860	10.2	78	870	750	290
MAY												
11...	1041	553	720	7.9	18.0	13.0	240	--	41	320	240	110
JUN												
14...	0725	1190	504	7.7	19.7	18.0	510	9.4	78	230	160	78
JUL												
12...	0730	124	1790	8.2	23.5	21.0	150	7.6	16	980	870	330
AUG												
17...	0810	586	422	7.8	20.5	19.5	.40	6.9	350	180	84	62
SEP												
21...	1050	135	2620	8.0	14.0	16.0	24	8.0	180	1500	1400	510

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L) (00530)
NOV												
02...	69	93	1.0	2.4	100	1500	57	.6	13	2610	2340	14
30...	31	43	.7	2.0	98	650	59	.4	11	1150	1160	208
DEC												
21...	71	100	1.1	2.9	120	1400	160	.6	14	2660	2340	79
FEB												
01...	69	130	1.4	2.8	120	1400	160	.6	14	2720	2350	55
MAR												
01...	63	96	1.1	2.6	110	1400	130	.9	13	2630	2270	23
APR												
12...	35	45	.7	1.5	120	730	63	.5	10	1330	1250	1750
MAY												
11...	12	15	.4	1.0	83	220	20	.2	12	465	441	406
JUN												
14...	8.6	11	.3	1.4	75	150	10	.3	8.2	335	313	1190
JUL												
12...	37	50	.7	2.1	110	810	84	.5	11	1500	1390	300
AUG												
17...	7.1	12	.4	2.3	100	120	9.0	.2	8.2	356	282	11300
SEP												
21...	66	88	1.0	2.4	120	1500	120	.6	13	2410	2370	78

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
NOV											
02...	.05	.04	.01	.25	.31	.020	.00	110	10	.9	.7
30...	.20	.21	.06	1.5	1.8	.380	.00	100	50	5.7	--
DEC											
21...	.10	.12	.00	.27	.37	.060	.01	110	0	.9	1.1
FEB											
01...	.05	.07	.01	.26	.32	.030	.01	110	40	1.8	.1
MAR											
01...	.01	.00	.06	.19	.26	.000	.00	130	20	1.2	1.2
APR											
12...	.15	.12	.08	3.6	3.9	.630	.02	70	10	2.1	16
MAY											
11...	.11	.13	.02	1.3	1.4	.300	.02	50	20	4.9	--
JUN											
14...	.09	.11	.05	1.8	1.9	.460	.00	20	10	5.9	14
JUL											
12...	.12	.08	.12	.33	.57	.130	.03	100	10	1.8	.6
AUG											
17...	.46	.26	.03	1.2	1.7	5.40	.03	20	30	3.7	5.1
SEP											
21...	.16	.17	.11	.06	.33	.040	.04	100	20	1.6	.6

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
DEC								
21...	0845	1	--	110	1	--	30	--
APR								
12...	0845	10	--	70	0	--	30	--
JUN								
14...	0725	4	--	20	1	--	20	--
AUG								
17...	0810	6	1	20	2	<1	190	0

DATE	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)
DEC							
21...	4	--	0	3	--	.0	--
APR							
12...	54	--	10	38	--	.2	--
JUN							
14...	37	--	10	49	--	1.4	--
AUG							
17...	220	1	30	220	30	.5	.0

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)
AUG							
17...	0810	2	0	2	0	6	.01

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)
AUG 17...	0810	.0	0	.00	.0	.00	.0	.00	.0	.01

DATE	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)
AUG 17...	.0	.00	.0	.00	.00	.0	.00	.0	.00

DATE	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	PERTHANE TOTAL (UG/L) (39034)	MIREX, TOTAL (UG/L) (39755)
AUG 17...	.0	.00	.0	.00	.0	0	0	.00	.00

Results of Analysis of Water and Bed Materials for Selected Chlorinated Hydrocarbon Isomers

Date	Time	o-p'-DDE	o-p'-DDD	o-p'DDT	cis-chlordane	trans-chlordane	∝-BHC	Hexachlorobenzene	cis-nonachlor
Aug 17	0810 (w)	0	0	0	0	0	0.01*	0	0
	(s)	0	0	0	0	0	0	0	0

NOTE: Reporting units are ug/L for water samples (w) and ug/kg for bed material sediment samples (s). The lowest detectable limit is 0.01 ug/L for water samples and 0.1 ug/kg for sediment samples.

08383500 PECOS RIVER NEAR PUERTO DE LUNA, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
NOV			
02...	1000	43	14
30...	0920	3500	1800
DEC			
21...	0845	50	54
FEB			
01...	0925	0	18
MAR			
01...	1145	0	0
APR			
12...	0845	2600	1500
MAY			
11...	1041	1300	530
JUN			
14...	0725	1950	529
JUL			
12...	0730	440	440
AUG			
17...	0810	12000	20000
SEP			
21...	1050	5600	1500

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV						
02...	1000	74	15.5	88	18	40
30...	0920	215	4.5	1480	859	56
DEC						
21...	0845	88	.0	400	95	18
FEB						
01...	0925	101	1.0	434	118	16
MAR						
01...	1145	86	12.0	110	26	37
APR						
12...	0845	228	6.0	3020	1860	59
MAY						
11...	1041	553	13.0	1950	2910	35
JUN						
14...	0725	1190	18.0	2690	8640	37
JUL						
12...	0730	124	21.0	1190	398	24
AUG						
17...	0810	586	19.5	14900	23600	77
SEP						
21...	1050	135	16.0	94	34	68

08384000 LAKE SUMNER NEAR FORT SUMNER, NM

LOCATION.--Lat 34°36'30", long 104°23'04", in SE¼SW¼ sec.34, T.5 N., R.24 E., DeBaca County, Hydrologic Unit 13060001, near center of dam on Pecos River, 5.0 mi (8.0 km) northeast of Guadalupe, 12.2 mi (19.6 km) northwest of Fort Sumner, and at mile 702.0 (1,129.5 km).

DRAINAGE AREA.--4,390 mi² (11,370 km²), approximately (contributing area).

PERIOD OF RECORD.--December 1938 to September 1965 (monthend elevations and contents), October 1965 to current year. Monthend elevations September 1937 to November 1938 published in reports of Pecos River Commission. Elevations and contents May 27, 1937 to June 10, 1937 in WSP 842. Prior to October 1974, published as "Alamogordo Reservoir".

REVISED RECORDS.--WSP 1732: 1939-54 (contents). WSP 1923: 1939-53(M) (m).

GAGE.--Nonrecording gage. Datum of gage is at Bureau of Reclamation datum. April 1, 1946, to Sept. 30, 1957, water-stage recorder above elevation 4,234.25 ft (1,290.599 m), nonrecording gage below.

REMARKS.--Reservoir is formed by earthfill dam, completed and storage began in August 1937. Capacity, 101,600 acre-ft (125 hm³) between elevation 4,200.0 ft (1,280.160 m) sill of outlet gate and elevation 4,275.0 ft (1,303.020 m), normal operating level. No dead storage. Reservoir is used to store water for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 138,300 acre-ft (171 hm³) May 23-30, June 1-10, July 21, Sept. 22, 23, 30, Oct. 12, Nov. 4, 5, 30, Dec. 23, 24, 1941, elevation, 4,275.00 ft (1,303.020 m); maximum elevation 4,276.10 ft (1,303.355 m) June 3, Sept. 8, 1958; no storage July 28 to Aug. 2, 1951, elevation 4,200.70 ft (1,280.373 m).

COOPERATION.--Elevation record and capacity table (dated November 1973) furnished by Bureau of Reclamation.

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5580	6770	17320	22920	28010	32620	34780	48630	72200	101200	100700	100700
2	5580	6990	17700	23080	28200	32620	34780	49460	76060	101200	100300	100700
3	5580	7280	18080	23240	28390	32620	34780	50010	79680	101600	100300	100700
4	5580	8030	18360	23240	28390	32830	34780	50850	82720	101600	99810	100700
5	5580	9360	18490	23410	28580	32830	34780	51700	84670	101600	99810	100700
6	5580	10360	18620	23570	28780	32830	34780	52270	88680	101600	99810	100300
7	5640	10880	18760	23740	28970	33040	34780	52560	90740	101600	99360	99810
8	5640	11250	19030	23900	28970	33040	34780	53140	91160	102100	99360	99810
9	5640	11520	19170	24070	29160	33260	34780	53720	91990	101600	98920	99810
10	5580	11810	19310	24240	29360	33470	34780	54300	92410	101600	98920	99360
11	5580	12000	19450	24580	29360	33690	34780	55180	93690	101600	98470	99360
12	5580	12290	19590	24760	29560	33690	34780	56080	94540	101200	98470	99360
13	5580	12490	19730	24930	29560	33900	34780	56980	94540	101200	98470	98920
14	5510	12690	19870	24930	29750	34120	35220	57280	93690	100700	98470	98920
15	5450	12900	20010	25280	30150	34340	35440	57580	94120	100700	98470	98920
16	5450	13100	20300	25450	30150	34340	35670	57880	94970	101200	99810	98920
17	5390	13310	20600	25450	30350	34560	35890	57880	94540	101600	100700	98920
18	5390	13410	20740	25810	30550	34560	36120	56370	94540	101600	101200	98920
19	5390	13730	20890	25980	30760	34560	36120	54890	94540	101600	101600	98470
20	5330	13940	21040	25980	30760	34780	37030	53420	94970	101600	101600	98470
21	5330	14050	21190	26160	30960	34780	38200	53720	95840	101600	101600	98470
22	5330	14270	21350	26340	31160	34780	39380	55180	96710	101600	101600	98470
23	5330	14490	21500	26710	31160	34780	40590	56080	97150	101600	101600	98470
24	5330	14710	21650	26890	31370	34780	41330	56080	98030	101200	101200	98920
25	5510	15050	21810	26890	31570	35000	42330	56670	98920	100700	100700	98920
26	5640	15280	21960	27080	31780	35000	43340	57580	98920	102500	101200	98920
27	5830	15630	22120	27260	32200	35000	44370	59110	99360	100700	101200	98920
28	5960	16220	22280	27450	32620	35000	45410	60040	99810	100700	101200	98920
29	6220	16700	22440	27450	---	34780	46470	63200	100700	100700	100700	98920
30	6360	16950	22600	27450	---	34780	47540	65790	100700	100300	100700	98920
31	6560	---	22760	27820	---	34780	---	68450	---	100300	100700	---
MAX	6560	16950	22760	27820	32620	35000	47540	68450	100700	102500	101600	100700
MIN	5330	6770	17320	22920	28010	32620	34780	48630	72200	100300	98470	98470
(†)	+980	+10390	+5810	+5060	+4800	+2160	+12760	+20910	+32250	-400	+400	-1780

CAL YR 1978 MAX 48360 MIN 2460 † -14500
WTR YR 1979 MAX 102500 MIN 5330 † +93340

† CHANGE IN CONTENTS, IN ACRE-FEET

ELEVATION (FEET NGVD), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4231.40	4233.20	4244.40	4248.20	4251.10	4253.40	4254.40	4260.00	4267.60	4274.90	4274.80	4274.80
2	4231.40	4233.50	4244.70	4248.30	4251.20	4253.40	4254.40	4260.30	4268.70	4275.00	4274.70	4274.80
3	4231.40	4233.90	4245.00	4248.40	4251.30	4253.40	4254.40	4260.50	4269.70	4275.00	4274.70	4274.80
4	4231.40	4234.90	4245.10	4248.40	4251.30	4253.50	4254.40	4260.80	4270.50	4275.00	4274.60	4274.80
5	4231.40	4236.60	4245.20	4248.50	4251.40	4253.50	4254.40	4261.10	4271.00	4275.00	4274.60	4274.80
6	4231.40	4237.80	4245.30	4248.60	4251.50	4253.50	4254.40	4261.30	4272.00	4275.00	4274.60	4274.70
7	4231.50	4238.40	4245.40	4248.70	4251.60	4253.60	4254.40	4261.40	4272.50	4275.00	4274.50	4274.60
8	4231.50	4238.80	4245.60	4248.80	4251.60	4253.60	4254.40	4261.60	4272.60	4275.10	4274.50	4274.60
9	4231.50	4239.10	4245.70	4248.90	4251.70	4253.70	4254.40	4261.80	4272.80	4275.00	4274.40	4274.60
10	4231.40	4239.40	4245.80	4249.00	4251.80	4253.80	4254.40	4262.00	4272.90	4275.00	4274.40	4274.50
11	4231.40	4239.60	4245.90	4249.20	4251.80	4253.90	4254.40	4262.30	4273.20	4275.00	4274.30	4274.50
12	4231.40	4239.90	4246.00	4249.30	4251.90	4253.90	4254.40	4262.60	4273.40	4274.90	4274.30	4274.50
13	4231.40	4240.10	4246.10	4249.40	4251.90	4254.00	4254.40	4262.90	4273.40	4274.90	4274.30	4274.40
14	4231.30	4240.30	4246.20	4249.40	4252.00	4254.10	4254.60	4263.00	4273.20	4274.80	4274.30	4274.40
15	4231.20	4240.50	4246.30	4249.60	4252.20	4254.20	4254.70	4263.10	4273.30	4274.80	4274.30	4274.40
16	4231.20	4240.70	4246.50	4249.70	4252.20	4254.20	4254.80	4263.20	4273.50	4274.90	4274.60	4274.40
17	4231.10	4240.90	4246.70	4249.70	4252.30	4254.30	4254.90	4263.20	4273.40	4275.00	4274.80	4274.40
18	4231.10	4241.00	4246.80	4249.90	4252.40	4254.30	4255.00	4262.70	4273.40	4275.00	4274.90	4274.40
19	4231.10	4241.30	4246.90	4250.00	4252.50	4254.30	4255.00	4262.20	4273.40	4275.00	4275.00	4274.30
20	4231.00	4241.50	4247.00	4250.00	4252.50	4254.40	4255.40	4261.70	4273.50	4275.00	4275.00	4274.30
21	4231.00	4241.60	4247.10	4250.10	4252.60	4254.40	4255.90	4261.80	4273.70	4275.00	4275.00	4274.30
22	4231.00	4241.80	4247.20	4250.20	4252.70	4254.40	4256.40	4262.30	4273.90	4275.00	4275.00	4274.30
23	4231.00	4242.00	4247.30	4250.40	4252.70	4254.40	4256.90	4262.60	4274.00	4275.00	4275.00	4274.30
24	4231.00	4242.20	4247.40	4250.50	4252.80	4254.40	4257.20	4262.60	4274.20	4274.90	4274.90	4274.40
25	4231.30	4242.50	4247.50	4250.50	4252.90	4254.50	4257.60	4262.80	4274.40	4274.80	4274.80	4274.40
26	4231.50	4242.70	4247.60	4250.60	4253.00	4254.50	4258.00	4363.10	4274.40	4275.20	4274.90	4274.40
27	4231.80	4243.00	4247.70	4250.70	4253.20	4254.50	4258.40	4263.60	4274.50	4274.80	4274.90	4274.40
28	4232.00	4243.50	4247.80	4250.80	4253.40	4254.50	4258.80	4263.90	4274.60	4274.80	4274.90	4274.40
29	4232.40	4243.90	4247.90	4250.80	---	4254.40	4259.20	4264.90	4274.80	4274.80	4274.80	4274.40
30	4232.60	4244.10	4248.00	4250.80	---	4254.40	4259.60	4265.70	4274.79	4274.70	4274.80	4274.40
31	4232.90	---	4248.10	4251.00	---	4254.40	---	4266.50	---	4274.70	4274.80	---
MEAN	4231.45	4239.96	4246.46	4249.63	4252.13	4254.06	4255.65	4265.73	4272.91	4274.94	4274.69	4274.49
MAX	4232.90	4244.10	4248.10	4251.00	4253.40	4254.50	4259.60	4363.10	4274.80	4275.20	4275.00	4274.80
MIN	4231.00	4233.20	4244.40	4248.20	4251.10	4253.40	4254.40	4260.00	4267.60	4274.70	4274.30	4274.30

CAL YR 1978 MEAN 4240.50 MAX 4259.90 MIN 4225.10
WTR YR 1979 MEAN 4257.69 MAX 4363.10 MIN 4231.00

08384500 PECOS RIVER BELOW SUMNER DAM, NM

LOCATION.--Lat 34°36'15", long 104°23'14", in lot 1, sec.2, T.4 N., R.24 E., DeBaca County, Hydrologic Unit 13060003, on left bank 1,200 ft (366 m) downstream from Sumner Dam, 2.9 mi (4.7 km) upstream from Salado Creek, 4.6 mi (7.4 km) northeast of Guadalupe, 12.2 mi (19.6 km) northwest of Fort Sumner, and at mile 701.7 (1,129.0 km).

WATER-DISCHARGE RECORDS

DRAINAGE AREA.--4,390 mi^2 (11,370 km^2), approximately (contributing area).

PERIOD OF RECORD.--October 1912 to April 1926, August 1926 to current year. Monthly discharge only for some periods, published in WSP 1312. October 1944 to September 1974, published as "below Alamogordo Dam." Prior to October 1944, published as "near Guadalupe."

REVISED RECORDS.--WSP 1512: 1932. WSP 1632: 1942. WSP 1712: 1944.

GAGE.--Water-stage recorder and Parshall flume, with concrete control above top of flume. Datum of gage is 4,142.67 ft (1,262.686 m) Bureau of Reclamation datum. Prior to Sept. 10, 1936, at site 1.5 mi (2.4 km) upstream at different datum. Sept. 14, 1936, to Mar. 8, 1941, and June 11, to Sept. 21, 1941, at site 0.2 mi (0.3 km) downstream at different datums.

REMARKS.--Water-discharge records good. Diversion for irrigation of about 12,500 acres (51 km^2), 1959 determination, above station. Flow regulated by Lake Sumner (station 08384000).

AVERAGE DISCHARGE.--23 years (1913-25, 1927-36), 236 ft^3/s (6.684 m^3/s), 171,000 acre-ft/yr (211 hm^3/yr), prior to completion of Sumner Dam; 43 years (1937-79), 203 ft^3/s (5.749 m^3/s) 147,100 acre-ft/yr (181 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 42,800 ft^3/s (1,210 m^2/s) Sept. 1, 1942, by computation of flow over spillway and through outlet gates of Sumner Dam by Bureau of Reclamation; maximum gage height, 13.58 ft (4.139 m) Sept. 22, 1941, no flow at times.

Flood of June 2, 1937, about 75,000 ft^3/s (2,120 m^3/s) at site 1.5 mi (2.4 km) upstream, from peak inflow to Lake Sumner.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,370 ft^3/s (38.8 m^3/s) June 11, 12, gage height, 3.39 ft (1.033 m); no flow at times Jan 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	1.0	.38	.38	.39	.64	85	93	83	177	103	90
2	72	.84	.58	.09	.22	.64	84	92	5.1	97	104	89
3	72	.84	.38	.27	.35	.64	84	92	33	240	104	90
4	71	.64	.38	.51	.38	.64	84	93	97	237	103	90
5	70	.84	.42	.51	.38	.64	84	92	41	193	104	91
6	70	.84	.38	.51	.38	.64	84	92	6.0	196	103	90
7	70	1.0	.38	.51	.38	.64	84	97	872	235	103	89
8	69	.84	.38	.51	.38	.64	84	99	937	464	103	90
9	76	.64	.38	.51	.44	.84	84	100	873	375	103	90
10	80	.73	.38	.51	.50	.84	85	100	1350	204	101	85
11	80	.87	.38	.50	.50	.84	85	100	1370	97	102	82
12	79	.67	.43	.51	.44	.64	84	98	1370	99	102	82
13	79	.64	.38	.48	.45	.64	50	99	1350	98	85	82
14	80	.63	.38	.46	.38	1.1	21	100	874	99	76	82
15	79	.64	.39	.44	.39	.93	1.1	100	642	99	73	81
16	80	.64	.39	.51	.49	1.1	1.1	99	891	101	179	82
17	80	.64	.39	.51	.45	1.1	1.0	779	873	105	871	82
18	81	.64	.39	.54	.45	33	12	1120	718	103	627	82
19	81	.77	.46	.40	.28	81	85	1130	545	104	161	82
20	81	.79	.40	.39	.13	81	85	1130	337	104	265	83
21	81	.87	.39	.38	.13	82	86	1120	263	103	309	82
22	82	.87	.38	.29	.13	82	85	1110	247	398	177	82
23	70	.90	.39	.26	.28	81	86	1120	103	352	133	55
24	50	1.1	.42	.30	.28	81	84	1120	98	171	92	21
25	41	.92	.39	.38	.28	82	92	1120	218	103	391	21
26	35	.51	.38	.34	.45	83	97	1120	243	762	73	21
27	15	.45	.45	.12	.64	84	96	1110	123	459	787	39
28	.87	.39	.49	.12	.64	84	97	762	99	100	203	84
29	.87	.47	.43	.27	---	84	94	101	99	100	91	83
30	1.2	.49	.38	.25	---	84	92	103	100	103	92	82
31	.51	---	.38	.34	---	84	---	101	---	104	90	---
TOTAL	1900.45	22.11	12.51	12.10	10.59	1119.15	2176.2	14592	14860.1	6182	6010	2284
MEAN	61.3	.74	.40	.39	.38	36.1	72.5	471	495	199	194	76.1
MAX	82	1.1	.58	.54	.64	84	97	1130	1370	762	871	91
MIN	.51	.39	.38	.09	.13	.64	1.0	92	5.1	97	73	21
AC-FT	3770	44	25	24	21	2220	4320	28940	29470	12260	11920	4530

CAL YR 1978 TOTAL 54123.03 MEAN 148 MAX 1070 MIN .38 AC-FT 107400
WTR YR 1979 TOTAL 49181.21 MEAN 135 MAX 1370 MIN .09 AC-FT 97550

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937-66, 1972 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT											
06...	1800	72	2330	--	--	17.0	--	--	--	--	--
12...	0800	82	2320	--	--	15.5	--	--	--	--	--
18...	0935	82	2370	--	--	14.5	--	--	--	--	--
20...	1215	82	2380	--	--	15.0	--	--	--	--	--
24...	1145	39	2410	--	--	13.0	--	--	--	--	--
26...	1045	28	2380	--	--	11.0	--	--	--	--	--
DEC											
21...	1045	.39	2360	--	--	3.5	--	--	--	--	--
JAN											
31...	1430	.34	2200	--	--	5.0	--	--	--	--	--
MAR											
01...	1400	.64	2230	--	--	13.0	--	--	--	--	--
19...	1640	81	2450	--	--	19.0	--	--	--	--	--
20...	0845	82	2500	--	--	--	--	--	--	--	--
21...	1500	81	2560	--	--	8.5	--	--	--	--	--
23...	1120	81	2570	--	--	9.0	--	--	--	--	--
26...	0850	83	2530	--	--	8.5	--	--	--	--	--
APR											
05...	1100	84	2520	--	--	10.0	--	--	--	--	--
12...	1145	84	2470	8.0	14.0	10.0	3.2	10.0	1500	1400	500
13...	1045	84	2510	--	--	11.5	--	--	--	--	--
19...	1910	84	2510	--	--	9.5	--	--	--	--	--
20...	0630	84	2520	--	--	9.5	--	--	--	--	--
23...	0910	86	2520	--	--	10.5	--	--	--	--	--
MAY											
02...	1650	94	2490	--	--	13.5	--	--	--	--	--
11...	0828	100	2120	8.3	14.0	15.0	4.8	--	1100	1000	370
11...	1315	101	1960	--	--	14.5	--	--	--	--	--
17...	0730	99	2030	--	--	14.5	--	--	--	--	--
17...	0900	1090	1950	--	--	14.5	--	--	--	--	--
22...	1500	1090	1790	--	--	15.0	--	--	--	--	--
28...	1430	1090	1620	--	--	15.5	--	--	--	--	--
29...	1830	102	1720	--	--	15.5	--	--	--	--	--
31...	1530	101	1660	--	--	15.0	--	--	--	--	--
JUN											
05...	0800	70	1550	--	--	16.0	--	--	--	--	--
07...	0800	1050	1550	--	--	15.5	--	--	--	--	--
11...	0800	1430	1030	--	--	16.0	--	--	--	--	--
14...	0905	850	959	--	--	16.5	--	--	--	--	--
14...	1040	686	890	7.9	31.0	20.0	2.5	8.4	450	370	150
18...	0835	730	900	--	--	19.5	--	--	--	--	--
20...	0905	256	900	--	--	20.5	--	--	--	--	--
26...	1000	247	830	--	--	21.0	--	--	--	--	--
28...	0700	98	830	--	--	19.0	--	--	--	--	--
JUL											
03...	1800	306	780	--	--	21.5	--	--	--	--	--

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM AD-SORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT											
06...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
DEC											
21...	--	--	--	--	--	--	--	--	--	--	--
JAN											
31...	--	--	--	--	--	--	--	--	--	--	--
MAR											
01...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
APR											
05...	--	--	--	--	--	--	--	--	--	--	--
12...	60	88	1.0	2.7	110	1400	130	.6	11	2400	2260
13...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
MAY											
02...	--	--	--	--	--	--	--	--	--	--	--
11...	46	64	.8	2.5	99	1000	85	.5	11	1720	--
11...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
JUN											
05...	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
14...	18	25	.5	1.3	78	340	29	.2	8.4	671	619
18...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
JUL											
03...	--	--	--	--	--	--	--	--	--	--	--

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT										
06...	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
DEC										
21...	--	--	--	--	--	--	--	--	--	--
JAN										
31...	--	--	--	--	--	--	--	--	--	--
MAR										
01...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
APR										
05...	--	--	--	--	--	--	--	--	--	--
12...	.01	.11	.10	.22	.000	--	--	3.6	--	--
13...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
MAY										
02...	--	--	--	--	--	--	--	--	--	--
11...	.02	.06	.27	.35	.010	20	50	--	4.5	.6
11...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
14...	.03	.13	.43	.59	.020	--	--	6.4	--	--
18...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--
JUL										
03...	--	--	--	--	--	--	--	--	--	--

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JUL											
09...	1310	318	750	--	--	22.0	--	--	--	--	--
10...	0930	152	750	--	--	21.0	--	--	--	--	--
12...	1120	100	805	7.9	33.0	21.5	32	7.8	360	270	120
18...	0725	104	750	--	--	22.0	--	--	--	--	--
24...	1420	102	790	--	--	23.5	--	--	--	--	--
27...	0700	1090	800	--	--	23.0	--	--	--	--	--
27...	1400	102	810	--	--	24.0	--	--	--	--	--
30...	1010	102	850	--	--	28.0	--	--	--	--	--
31...	1240	103	830	--	--	--	--	--	--	--	--
AUG											
01...	1545	102	850	--	--	23.0	--	--	--	--	--
06...	0805	102	850	--	--	21.0	--	--	--	--	--
13...	0700	102	860	--	--	21.5	--	--	--	--	--
13...	0900	80	870	--	--	22.0	--	--	--	--	--
16...	1535	75	673	7.7	25.5	23.0	.70	7.8	390	310	130
16...	1750	352	889	--	--	23.0	--	--	--	--	--
20...	1630	266	856	--	--	23.5	--	--	--	--	--
31...	1305	91	905	--	--	23.0	--	--	--	--	--
SEP											
10...	1010	84	895	--	--	22.0	--	--	--	--	--
13...	1830	82	880	--	--	21.5	--	--	--	--	--
14...	1010	82	884	--	--	21.0	--	--	--	--	--
15...	0915	82	903	--	--	20.5	--	--	--	--	--
17...	1600	82	920	--	--	20.0	--	--	--	--	--
21...	0800	82	1080	8.1	16.0	20.0	12	8.1	570	470	190
30...	1815	82	1200	--	--	20.0	--	--	--	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
JUL											
09...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
12...	15	22	.5	1.7	87	290	25	.3	10	557	536
18...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
AUG											
01...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
16...	16	22	.5	2.0	85	340	29	.3	9.5	626	601
16...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
SEP											
10...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
21...	23	33	.6	2.5	98	480	39	.4	10	894	837
30...	--	--	--	--	--	--	--	--	--	--	--

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
JUL											
09...	--	--	--	--	--	--	--	--	--	--	--
10...	--	--	--	--	--	--	--	--	--	--	--
12...	.15	--	.05	.42	.62	.030	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
AUG											
01...	--	--	--	--	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
16...	.02	--	.07	.37	.46	.060	10	580	--	4.6	1.0
16...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--	--
SEP											
10...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
21...	.09	.06	.11	.44	.64	.090	--	--	3.7	--	--
30...	--	--	--	--	--	--	--	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
MAY									
11...	0828	3	3	100	100	1	0	10	0
AUG									
16...	1535	3	2	200	100	13	32	0	0

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
MAY									
11...	3	0	0	0	170	20	6	0	70
AUG									
16...	0	,3	2	0	170	10	98	0	630

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)
MAY									
11...	50	.3	.0	1	0	0	0	20	20
AUG									
16...	580	.2	.0	0	0	0	0	20	,3

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
APR			
12...	1145	0	1
MAY			
11...	0828	4	140
JUN			
14...	1040	1	15
JUL			
12...	1120	7	8
AUG			
16...	1535	4	3
SEP			
21...	0800	2	3

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

IDENTIFICATION OF PHYTOPLANKTON

DATE	APR 12,79		JUN 14,79		JUL 12,79	
TIME	1145		1040		1120	
TOTAL CELLS/ML	19000		380		240	
DIVERSITY: DIVISION	1.2		0.8		1.6	
.CLASS	1.2		0.8		1.6	
..ORDER	1.2		0.8		2.0	
...FAMILY	1.2		0.8		2.6	
....GENUS	1.6		0.8		2.9	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	4400#	24	--	-	15	6
....CHODATELLA	*	0	--	-	--	-
....DICTYOSPHAERIUM	680	4	--	-	--	-
....OOCYSTIS	400	2	--	-	--	-
....SELENASTRUM	110	1	--	-	--	-
....TREUBARIA	*	0	--	-	--	-
...SCENEDESMACEAE						
....SCENEDESMUS	--	-	--	-	30	13
....TETRASTRUM	--	-	--	-	40#	17
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	13	3	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	--	-	13	3	45#	19
..PENNALES						
...ACHNANTHACEAE						
....COCCONEIS	--	-	--	-	5	2
...DIATOMACEAE						
....DIATOMA	110	1	--	-	--	-
...NAVICULACEAE						
....NAVICULA	--	-	--	-	35	15
...NITZSCHIACEAE						
....NITZSCHIA	280	2	--	-	20	9
.CHRYSOPHYCEAE						
..CHRYSOMONADALES						
...OCHROMONADACEAE						
....OCHROMONAS	400	2	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	26	7	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....ANACYSTIS	12000#	64	--	-	--	-
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	--	-	--	-	40#	17
...OSCILLATORIACEAE						
....OSCILLATORIA	--	-	320#	86	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	*	0	--	-	5	2
....TRACHELOMONAS	*	0	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PERIPHYTON

DATE	TIME	LENGTH OF EXPOSURE (DAYS) (00022)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLOROPHYLL RATIO PERIPHYTON (UNITS) (70950)	SAMPLING METHOD
JUN								
14...	1040	34	1.65	1.42	1.47	.310	156	Polyethylene strip
SEP								
21...	0800	36	16.2	15.0	16.3	1.86	73.6	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT							
06...	1800	72	2330	17.0	55	11	--
12...	0800	82	2320	15.5	61	14	--
18...	0935	82	2370	14.5	61	14	--
20...	1215	82	2380	15.0	49	11	--
24...	1145	39	2410	13.0	66	6.9	--
26...	1045	28	2380	11.0	35	2.6	--
DEC							
21...	1045	.39	2360	3.5	42	.04	--
JAN							
31...	1430	.34	2200	5.0	25	.02	--
MAR							
01...	1400	.64	2230	13.0	106	.18	--
19...	1640	81	2450	19.0	29	6.3	--
20...	0845	82	2500	--	33	7.3	--
21...	1500	81	2560	8.5	33	7.3	--
23...	1120	81	2570	9.0	29	6.3	--
26...	0850	83	2530	8.5	28	6.3	--
APR							
05...	1100	84	2520	10.0	35	7.9	--
12...	1145	84	2470	10.0	74	17	64
13...	1045	84	2510	11.5	35	7.9	--
19...	1910	84	2510	9.5	28	6.4	--
20...	0630	84	2520	9.5	24	5.4	--
23...	0910	86	2520	10.5	15	3.5	--
MAY							
02...	1650	94	2490	13.5	49	12	--
11...	0828	100	2120	15.0	10	2.7	88
11...	1315	101	1960	14.5	35	9.5	--
17...	0730	99	2030	14.5	24	6.4	--
17...	0900	1090	1950	14.5	99	291	--
22...	1500	1090	1790	15.0	18	53	--
28...	1430	1090	1620	15.5	12	35	--
29...	1830	102	1720	15.5	28	7.7	--
31...	1530	101	1660	15.0	11	3.0	--
JUN							
05...	0800	70	1550	16.0	9	1.7	--
07...	0800	1050	1550	15.5	412	1170	--
11...	0800	1430	1030	16.0	35	135	--
14...	0905	850	959	16.5	3	6.9	--
14...	1040	686	890	20.0	19	35	36

08384500 PECOS RIVER BELOW SUMNER DAM, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)
JUN												
18...	0835	730	900	19.5	16	32	--	--	--	--	--	--
20...	0905	256	900	20.5	32	22	--	--	--	--	--	--
26...	1000	247	830	21.0	28	19	--	--	--	--	--	--
28...	0700	98	830	19.0	35	9.3	--	--	--	--	--	--
JUL												
03...	1800	306	780	21.5	34	28	--	--	--	--	--	--
09...	1310	318	750	22.0	39	33	--	--	--	--	--	--
10...	0930	152	750	21.0	28	11	--	--	--	--	--	--
12...	1120	100	805	21.5	35	9.4	97	100	--	--	--	--
18...	0725	104	750	22.0	52	15	--	--	--	--	--	--
24...	1420	102	790	23.5	44	12	--	--	--	--	--	--
27...	0700	1090	800	23.0	27	79	--	--	--	--	--	--
27...	1400	102	810	24.0	43	12	--	--	--	--	--	--
30...	1010	102	850	28.0	36	9.9	--	--	--	--	--	--
31...	1240	103	830	--	38	11	--	--	--	--	--	--
AUG												
01...	1545	102	850	23.0	42	12	--	--	--	--	--	--
06...	0805	102	850	21.0	42	12	--	--	--	--	--	--
13...	0700	102	860	21.5	29	8.0	--	--	--	--	--	--
13...	0900	80	870	22.0	30	6.5	--	--	--	--	--	--
16...	1535	75	673	23.0	320	65	--	--	7	8	87	100
16...	1750	352	889	23.0	15	14	--	--	--	--	--	--
20...	1630	266	856	23.5	16	11	--	--	--	--	--	--
31...	1305	91	905	23.0	18	4.4	--	--	--	--	--	--
SEP												
10...	1010	84	895	22.0	10	2.3	--	--	--	--	--	--
13...	1830	82	880	21.5	7	1.5	--	--	--	--	--	--
14...	1010	82	884	21.0	6	1.3	--	--	--	--	--	--
15...	0915	82	903	20.5	6	1.3	--	--	--	--	--	--
17...	1600	82	920	20.0	9	2.0	--	--	--	--	--	--
21...	0800	82	1080	20.0	24	5.3	98	100	--	--	--	--
30...	1815	82	1200	20.0	33	7.3	--	--	--	--	--	--

08385000 FORT SUMNER MAIN CANAL NEAR FORT SUMNER, NM

LOCATION.—Lat 34°30'30", long 104°16'40", in SE¼SW¼SW¼ sec.1, T.3 N., R.25 E., DeBaca County, Hydrologic Unit 13060003, on right bank of concrete canal, 200 ft (60 m) downstream from diversion dam on Pecos River, 3.0 mi (4.8 km) northwest of Fort Sumner, and at Pecos River mile 684.8 (1,101.8 km).

PERIOD OF RECORD.—March 1939 to February 1943 (published in WSP 1732), April 1954 to current year (monthly discharge only prior to October 1965).

GAGE.—Water-stage recorder. Datum of gage is 4,034.7 ft (1,229.78 m) National Geodetic Vertical Datum of 1929 (Bureau of Reclamation bench mark). Prior to March 1954 at site 2.4 mi (3.9 km) downstream at different datum. April 1954 to March 1965 at site 1.1 mi (1.8 km) downstream at datum 1.7 ft (0.52 m) lower.

REMARKS.—Records good. Canal diverts water from Pecos River for irrigation of about 6,600 acres (27 km²), 1961 determination, by the Fort Sumner Irrigation District. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.—28 years (1940-42, 1955-79), 49.0 ft³/s (1.388 m³/s), 35,500 acre-ft/yr (43.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.—Maximum daily discharge, 174 ft³/s (4.93 m³/s) July 22, 1941; no flow many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	68	.00	.00	.00	.00	.00	74	86	101	96	90	88
2	69	.00	.00	.00	.00	.00	75	84	83	96	67	84
3	68	.00	.00	.00	.00	.00	74	87	46	94	89	87
4	75	.00	.00	.00	.00	.00	76	87	59	99	86	89
5	76	.00	.00	.00	.00	.00	72	84	96	96	85	88
6	75	.00	.00	.00	.00	.00	78	82	73	96	85	87
7	78	.00	.00	.00	.00	.00	81	81	6.5	96	82	86
8	78	.00	.00	.00	.00	.00	81	85	6.2	102	80	87
9	76	.00	.00	.00	.00	.00	82	90	6.0	99	79	88
10	83	.00	.00	.00	.00	.00	79	84	6.0	95	85	83
11	84	.00	.00	.00	.00	.00	82	92	5.8	79	84	78
12	84	.00	.00	.00	.00	.00	82	89	61	91	84	78
13	82	.00	.00	.00	.00	.00	81	87	94	92	84	80
14	75	.00	.00	.00	.00	.00	32	88	89	89	67	86
15	74	.00	.00	.00	.00	.00	15	89	99	88	75	83
16	75	.00	.00	.00	.00	.00	2.2	88	103	92	80	82
17	72	.00	.00	.00	.00	.00	2.0	81	105	90	81	82
18	72	.00	.00	.00	.00	.00	1.9	72	103	87	93	85
19	72	.00	.00	.00	.00	30	1.7	69	96	85	85	82
20	74	.00	.00	.00	.00	64	52	79	96	85	90	80
21	71	.00	.00	.00	.00	72	75	82	98	84	89	87
22	72	.00	.00	.00	.00	69	76	90	97	86	89	94
23	72	.00	.00	.00	.00	70	71	91	95	89	93	101
24	57	.00	.00	.00	.00	71	79	89	95	92	92	35
25	42	.00	.00	.00	.00	73	72	91	94	94	92	2.4
26	38	.00	.00	.00	.00	76	83	92	83	106	89	2.4
27	13	.00	.00	.00	.00	80	84	91	77	98	96	2.6
28	.00	.00	.00	.00	.00	81	86	92	90	93	92	54
29	.00	.00	.00	.00	---	80	89	76	92	92	92	77
30	.00	.00	.00	.00	---	78	87	97	93	92	89	77
31	.00	---	.00	.00	---	77	---	97	---	91	96	---
TOTAL	1875.00	.00	.00	.00	.00	921.00	1925.8	2672	2248.5	2864	2680	2215.4
MEAN	60.5	.000	.000	.000	.000	29.7	64.2	86.2	75.0	92.4	86.5	73.8
MAX	84	.00	.00	.00	.00	81	89	97	105	106	96	101
MIN	.00	.00	.00	.00	.00	.00	1.7	69	5.8	79	67	2.4
AC-FT	3720	.00	.00	.00	.00	1830	3820	5300	4460	5680	5320	4390

CAL YR 1978 TOTAL 17715.60 MEAN 48.5 MAX 122 MIN .00 AC-FT 35140
WTR YR 1979 TOTAL 17401.70 MEAN 47.7 MAX 106 MIN .00 AC-FT 34520

08386000 PECOS RIVER NEAR ACME, NM

LOCATION.—Lat 33°32'10", long 104°22'34", in SW¼NW¼ sec.14, T.9 S., R.25 E., Chaves County, Hydrologic Unit 13060007, on right bank 3.0 mi (4.8 km) downstream from U.S. Highway 70, 3.7 mi (6.0 km) downstream from Salt Creek, 4.7 mi (7.6 km) southwest of Acme, 14 mi (22.5 km) northeast of Roswell, and at mile 585.3 (941.7 km).

DRAINAGE AREA.—11,380 mi² (29,470 km²), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—September 1921 to June 1923, July 1937 to current year. Monthly discharge only for some periods, published in WSP 1312.

GAGE.—Water-stage recorder. Altitude of gage is 3,507 ft (1,069 m), from topographic map. Prior to Nov. 1, 1938, at site on highway bridge 3 mi (4.8 km) upstream at various datums. Since Oct. 25, 1963, supplemental water-stage recorder at site opposite base gage at same datum.

REMARKS.—Water-discharge records fair except those below 10 ft³/s (0.28 m³/s), which are poor. Flow regulated by Lake Sumner (station 08384000). Diversions for irrigation of about 20,000 acres (81 km²), 1959 determination, above station.

AVERAGE DISCHARGE.—42 years (1938-79), 185 ft³/s (5.239 m³/s), 134,000 acre-ft/yr (165 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 45,000 ft³/s (1,270 m³/s) Sept. 23, 1941, gage height, 13.71 ft (4.179 m), from rating curve extended above 26,000 ft³/s (736 m³/s); no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.—The flood of May 28, 1937, reached a discharge of 53,000 ft³/s (1,500 m³/s), gage height, 14.82 ft (4.517m), from floodmarks, site and datum then in use, by slope-area method, but may have been exceeded by the flood of Oct. 1, 1904.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 2,560 ft³/s (72.5 m³/s) at 1800 hours June 1, gage height, 6.47 ft (1.972 m), no other peak above base of 2,500 ft³/s (71 m³/s); no flow several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	7.0	27	10	19	12	5.8	2.1	13	898	130	158	98
2	6.2	25	10	18	13	5.8	2.7	88	613	100	93	276
3	10	23	9.0	17	13	5.5	2.9	40	243	90	162	85
4	9.5	33	7.7	14	13	4.7	3.2	23	174	80	75	51
5	9.5	102	7.7	11	15	4.7	4.0	18	133	70	44	33
6	9.5	97	7.3	9.5	21	4.7	4.0	15	292	130	25	33
7	13	56	7.7	11	17	4.4	5.1	11	158	280	20	26
8	13	40	5.8	10	10	4.4	5.1	7.0	198	145	18	21
9	9.5	30	6.5	13	9.0	3.7	4.7	3.2	589	115	.00	14
10	9.0	24	6.5	15	9.0	4.4	4.4	1.4	450	95	.00	10
11	8.2	29	6.5	14	8.2	5.5	4.4	1.4	874	312	.00	8.6
12	4.7	28	8.0	22	8.2	5.1	4.7	1.6	1140	219	.00	7.3
13	3.7	37	5.5	22	7.7	4.0	4.7	4.0	1150	127	.00	5.8
14	2.4	32	7.7	21	7.3	2.7	7.3	6.6	1170	63	.00	6.6
15	1.4	26	13	23	7.0	2.1	12	6.2	977	35	.00	12
16	1.9	28	20	18	7.3	2.1	11	7.0	467	25	.00	12
17	.94	24	19	17	9.0	2.7	14	13	467	44	11	14
18	2.9	23	16	23	9.5	2.7	15	12	690	33	15	17
19	2.7	21	14	23	11	1.9	15	73	573	22	450	15
20	2.9	19	11	21	11	1.9	10	752	526	17	388	15
21	2.4	19	9.0	19	12	2.9	7.0	862	518	16	178	13
22	5.8	19	9.5	18	11	2.9	5.1	939	518	12	102	12
23	18	18	8.6	15	10	1.4	4.0	807	248	11	150	11
24	71	17	7.7	13	8.2	1.9	7.5	884	243	9.0	202	11
25	110	17	7.7	15	7.7	2.7	9.5	884	326	38	107	12
26	73	15	8.2	15	7.3	2.4	5.5	962	360	174	69	14
27	48	14	8.2	14	7.0	1.6	3.7	906	202	163	1020	21
28	60	13	9.0	14	6.2	1.6	2.7	1130	170	275	317	19
29	36	12	9.5	13	---	1.4	3.2	939	150	269	352	12
30	33	11	10	11	---	1.6	7.3	580	165	130	262	9.5
31	30	---	9.5	12	---	1.6	---	262	---	199	140	---
TOTAL	615.14	879	295.8	500.5	287.6	100.8	191.8	10251.4	14674	3428.0	4358.00	894.8
MEAN	19.8	29.3	9.54	16.1	10.3	3.25	6.39	331	489	111	141	29.8
MAX	110	102	20	23	21	5.8	15	1130	1170	312	1020	276
MIN	.94	11	5.5	9.5	6.2	1.4	2.1	1.4	133	9.0	.00	5.8
AC-FT	1220	1740	587	993	570	200	380	20330	29110	6800	8640	1770

CAL YR 1978 TOTAL 40160.99 MEAN 110 MAX 1700 MIN .00 AC-FT 79660
WTR YR 1979 TOTAL 36476.84 MEAN 99.9 MAX 1170 MIN .00 AC-FT 72350

08386000 PECOS RIVER NEAR ACME, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
OCT 13...	1105	4.4	3900	8.0	16.0	1600	--	450	110	310	3.4	4.7
NOV 07...	1105	60	1530	8.0	8.5	680	610	210	38	110	1.8	3.0
DEC 12...	1125	9.5	4840	8.0	.0	1800	1700	500	140	300	3.1	5.7
JAN 12...	1110	20	3750	7.8	5.0	1400	1300	410	100	340	3.9	4.6
FEB 12...	0940	7.9	5040	8.0	4.0	1700	1600	470	130	530	5.6	7.2
MAR 08...	0955	4.7	5710	8.0	10.5	2100	2000	590	150	640	6.1	5.7
APR 06...	1050	4.8	6050	7.9	17.0	2400	2300	650	180	650	5.8	6.0
MAY 10...	1050	1.4	6200	7.7	19.5	2400	2300	690	170	700	6.2	10
JUN 08...	1025	238	1780	8.0	20.5	870	790	250	60	110	1.6	4.0
20...	1150	526	1070	8.0	22.0	--	--	--	--	--	--	--
AUG 31...	1045	152	1110	8.1	26.5	490	410	150	28	40	.8	2.8
SEP 26...	1050	11	3190	8.0	26.0	1300	1300	380	94	270	3.2	4.6

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
OCT 13...	65	1700	420	.8	13	3470	3050	.06	.04	330	20
NOV 07...	72	600	130	.6	8.4	--	1140	.47	--	--	--
DEC 12...	150	1500	740	.5	14	--	3290	.37	--	--	--
JAN 12...	110	1300	520	.5	11	--	2750	.42	--	--	--
FEB 12...	98	1700	740	.6	11	--	3650	.38	--	--	--
MAR 08...	90	2000	1000	.6	8.2	--	4450	.09	--	--	--
APR 06...	84	2300	950	.7	7.1	--	4790	.01	--	--	--
MAY 10...	90	2200	990	.8	9.7	5240	4830	.00	.00	530	10
JUN 08...	82	750	130	.6	8.6	--	1360	.25	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
AUG 31...	85	450	47	.5	10	--	780	.17	--	--	--
SEP 26...	66	1300	350	.6	15	--	2450	.09	--	--	--

08386900 F. HERRERA DITCH-S. AT HOLLYWOOD, NM

LOCATION.--Lat 33°19'35", long 105°36'50", in NE¼NE¼SW¼ sec.30, T.11 S., R.14 E., Lincoln County, Hydrologic Unit 13060008, on left bank, at upstream end of flume over Grapevine Canyon, 1.0 mi (1.6 km) below point of diversion, 0.7 mi (1.1 km) east of Hollywood and junction of U.S. Highway 70 and State Highway 37, point of diversion at Rio Ruidoso mile 24.5 (39.4 km).

PERIOD OF RECORD.--May 1960 to current year. (Monthly acre-ft only prior to January 1973, published as a supplement to station 08387000).

GAGE.--Water stage recorder and concrete control. Altitude of gage is 6,430 ft (1,960 m), from Topographic Division. Prior to Mar. 20, 1962, at site 315 ft (96 m) downstream at datum 12.79 ft (3.898 m) lower.

REMARKS.--Records Good. Water is diverted from Rio Ruidoso 1.0 mi (1.6 km) upstream for irrigation below station 08387000.

AVERAGE DISCHARGE.--19 years, 0.47 ft³/s (0.013 m³/s), 341 acre-ft/yr (420,000 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 6.6 ft³/s (0.19 m³/s) June 15, 1961; no flow many days each year.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 0.04 ft³/s (0.001 m³/s) June 2; no flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	---
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.001	.000	.000	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.04	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.08	.00	.00	.00

CAL YR 1978 TOTAL 0.01 MEAN .000 MAX .01 MIN .00 AC-FT .02
WTR YR 1979 TOTAL 0.04 MEAN .000 MAX .04 MIN .00 AC-FT .08

08387000 RIO RUIDOSO AT HOLLYWOOD, NM

LOCATION.--Lat 33°19'43", long 105°36'34", in SW¼SE¼NE¼ sec.30, T.11 S., R.14 E., Lincoln County, Hydrologic Unit 13060008, on right upstream bridge abutment on road leading to Ruidoso Downs race track, 0.2 mi (0.3 km) north of U.S. Highway 70, 1.1 mi (1.8 km) east of the Hollywood Post Office, 1.2 mi (1.9 km) downstream from the Ruidoso sewage disposal plant, 1.8 mi (2.9 km) downstream from Gavilan Canyon, 2.8 mi (4.5 km) downstream from Carrizo Creek, and at mile 23.4 (37.7 km).

DRAINAGE AREA.--120 mi^2 (310 km^2), approximately.

PERIOD OF RECORD.--March 1953 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,365.42 ft (1,940.180 m) National Geodetic Vertical Datum of 1929. Prior to Oct. 14, 1961, at datum 0.30 ft (0.091 m) higher. Oct. 14, 1961, to Mar. 8, 1962, at datum 0.60 ft (0.183 m) higher. Mar. 9, 1962, to June 18, 1965, at datum 1.0 ft (0.305 m) higher.

REMARKS.--Records good. Figures of discharge do not include F. Herrera ditch-S. (station 08386900), which diverts from right bank 1.5 mi (2.4 km) upstream and bypasses station for irrigation of 75 acres (30.4 hm^2), 1959 determination. Village of Ruidoso diverts from right bank 7.0 mi (11.3 km) upstream for municipal use and returns a portion of this water as effluent from sewage disposal plant 1.2 mi (1.9 km) upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--26 years, 14.9 ft^3/s (0.422 m^3/s) 10,800 acre-ft/yr (13.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,570 ft^3/s (44.4 m^3/s) Dec. 20, 1978, gage height, 8.63 ft (2.630 m) present datum, from rating curve extended above 700 ft^3/s (3.12 m^3/s) on basis of slope-area measurement of peak flow; minimum, 0.30 ft^3/s (0.008 m^3/s) Jan. 1, 1962, May 8-9, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Sept. 29, 1941, is probably the highest since at least 1904 (discharge not determined).

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 100 ft^3/s (2.8 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Dec. 20	--	*1,570	44.5	8.63	2.630
Apr. 18	0900	158	4.47	2.35	0.716
June 2	0200	177	5.01	2.39	0.728

Minimum, 7.4 ft^3/s (0.210 m^3/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	53	39	50	27	40	60	94	63	15	17	16
2	24	81	35	44	27	45	59	85	117	15	16	17
3	21	80	31	42	27	44	56	76	103	15	14	16
4	20	79	29	40	25	39	53	64	96	17	11	13
5	18	65	27	39	25	38	49	53	95	16	11	13
6	17	57	26	47	25	37	50	51	86	14	11	11
7	17	49	23	42	24	37	59	58	80	13	11	10
8	16	43	21	37	23	40	72	58	77	13	11	9.9
9	15	39	19	36	21	47	86	57	73	12	13	9.5
10	14	35	20	34	21	52	87	51	63	11	17	9.4
11	14	98	18	33	23	54	77	44	54	9.9	15	8.9
12	14	187	18	33	24	57	66	39	46	10	12	8.6
13	14	142	17	32	26	62	58	37	40	10	14	8.1
14	13	91	18	30	28	70	54	39	38	9.3	15	11
15	13	72	18	31	34	74	63	44	35	8.7	23	24
16	13	64	17	30	50	76	94	55	33	11	31	20
17	13	54	16	31	52	79	120	69	32	12	57	24
18	12	47	20	64	50	81	149	65	30	13	59	27
19	12	42	150	53	51	73	145	62	28	13	52	29
20	12	38	600	44	50	68	136	72	27	13	46	29
21	13	35	330	41	58	70	127	61	24	12	39	31
22	15	33	214	39	53	67	108	48	22	12	33	27
23	24	33	149	36	49	62	103	46	21	11	29	23
24	21	48	112	35	46	57	122	49	21	11	26	20
25	23	88	85	42	42	55	134	58	27	28	23	18
26	27	91	69	36	41	56	124	68	22	22	20	16
27	20	74	58	31	41	59	133	83	20	15	19	15
28	19	62	52	30	40	60	126	88	20	11	18	14
29	21	52	48	28	---	62	116	81	18	10	17	13
30	23	44	56	27	---	61	100	74	16	9.9	17	12
31	25	---	61	27	---	60	---	67	---	12	15	---
TOTAL	551	1976	2396	1164	1003	1782	2786	1896	1427	404.8	712	503.4
MEAN	17.8	65.9	77.3	37.5	35.8	57.5	92.9	61.2	47.6	13.1	23.0	16.8
MAX	28	187	600	64	58	81	149	94	117	28	59	31
MIN	12	33	16	27	21	37	49	37	16	8.7	11	8.1
AC-FT	1090	3920	4750	2310	1990	3530	5530	3760	2830	803	1410	998

CAL YR 1978 TOTAL 12655.5 MEAN 34.7 MAX 600 MIN 6.2 AC-FT 25100
WTR YR 1979 TOTAL 16601.2 MEAN 45.5 MAX 600 MIN 8.1 AC-FT 32930

08387600 EAGLE CREEK BELOW SOUTH FORK, NEAR ALTO, NM

LOCATION.--Lat 33°23'33", long 105°43'16", in SE¼SW¼ sec.31, T.10 S., R.13 E., Lincoln County, Hydrologic Unit 13060008, in Lincoln National Forest at right bank, 100 ft (30 m) downstream from culvert under State Road No. 532, 0.1 mi (0.2 km) downstream from South Fork, and 2.4 mi (3.9 km) west of Alto. Mouth at Rio Ruidoso mile 11.3 (18.2 km).

DRAINAGE AREA.--8.14 mi² (21.08 km²).

PERIOD OF RECORD.—August 1969 to current year.

GAGE.—Water-stage recorder and concrete control. Altitude of gage is 7,600 ft (2,316 m), from topographic map.

REMARKS.--Records good. No diversions for irrigation above station. Some water is stored in small unregulated recreational ponds on the Mescalero Apache Indian Reservation upstream. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 3.22 ft³/s (0.091 m³/s), 2,330 acre-ft/yr (2.87 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 206 ft³/s (5.83 m³/s) Dec. 19, 1979, gage height, 3.79 ft (1.155 m), from rating curve extended above 21 ft³/s (0.59 m³/s); minimum, 0.05 ft³/s (0.001 m³/s) June 30, July 3, 4, 1974.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 206 ft³/s (5.83 m³/s) at 0700 Dec. 19, gage height, 3.79 ft (1.155 m), no other peak above base of 25 ft³/s (0.7 m³/s); minimum, 0.85 ft³/s (0.024 m³/s) Oct. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.1	13	9.9	10	4.0	7.5	10	16	5.8	1.4	12	1.9
2	3.4	20	8.7	9.0	4.2	8.0	10	13	12	1.4	9.9	1.9
3	2.9	19	7.5	8.5	5.0	7.5	9.5	12	16	1.4	10	2.1
4	2.6	18	6.3	8.0	5.6	7.0	9.0	11	13	1.5	4.0	1.9
5	2.3	15	6.1	6.5	6.0	7.5	8.5	9.0	12	1.9	3.4	1.8
6	2.0	13	5.8	6.5	5.0	8.0	9.0	7.0	13	2.7	3.1	1.7
7	1.9	12	5.2	6.0	4.0	9.0	9.0	6.5	13	2.0	2.8	1.6
8	1.7	10	4.0	5.5	3.0	10	10	6.5	11	1.1	3.3	1.6
9	1.5	8.0	4.7	5.0	2.5	11	11	6.0	9.3	1.1	3.2	1.5
10	1.4	7.0	4.8	6.0	4.5	10	13	6.0	7.3	1.1	2.9	1.5
11	1.4	20	4.1	7.0	5.6	10	12	5.6	6.2	.97	2.7	1.4
12	1.2	35	3.7	8.0	5.4	9.0	10	5.2	5.4	1.3	2.5	1.4
13	1.1	40	3.7	7.5	6.0	10	8.0	4.8	5.0	1.7	2.2	1.3
14	1.0	20	3.6	7.0	8.0	12	6.5	5.0	4.7	1.5	2.3	1.8
15	.96	15	3.6	7.0	11	13	8.0	5.5	4.2	1.7	2.4	3.9
16	.96	10	3.5	8.0	14	14	12	6.6	3.9	1.7	5.4	3.3
17	.97	9.0	4.3	12	15	15	15	7.7	3.6	2.5	11	4.6
18	.95	7.0	11	15	15	15	19	8.1	3.3	2.9	11	5.1
19	.95	6.0	170	13	14	14	18	7.2	3.2	4.1	7.8	4.4
20	.96	5.0	90	11	13	12	17	7.0	2.9	3.1	5.8	4.0
21	1.2	5.0	50	10	12	10	16	5.7	2.8	3.2	5.0	3.7
22	1.6	5.0	35	8.0	13	12	15	5.1	2.5	2.2	4.5	3.5
23	3.1	5.0	30	6.5	11	12	14	4.9	2.3	2.3	3.9	3.1
24	7.2	15	25	7.0	10	12	15	5.3	2.4	2.1	3.6	2.8
25	7.6	80	20	8.0	9.0	11	17	5.4	3.6	5.1	3.3	2.6
26	8.6	35	18	7.6	8.0	11	17	5.9	2.6	5.6	2.9	2.4
27	5.0	25	16	7.4	8.5	11	17	7.7	2.1	3.1	2.7	2.4
28	4.0	20	14	7.2	7.0	9.0	17	8.2	1.9	2.5	2.5	2.2
29	3.5	14	11	7.0	---	9.5	18	7.3	1.7	2.3	2.3	2.1
30	3.5	12	12	5.0	---	10	17	6.7	1.5	2.3	2.3	2.0
31	7.0	---	14	4.5	---	11	---	5.9	---	6.9	2.1	---
TOTAL	86.55	518.0	605.5	244.7	229.3	328.0	387.5	223.8	178.2	74.67	142.8	75.5
MEAN	2.79	17.3	19.5	7.89	8.19	10.6	12.9	7.22	5.94	2.41	4.61	2.52
MAX	8.6	80	170	15	15	15	19	16	16	6.9	12	5.1
MIN	.95	5.0	3.5	4.5	2.5	7.0	6.5	4.8	1.5	.97	2.1	1.3
AC-FT	172	1030	1200	485	455	651	769	444	353	148	283	150

CAL YR 1978 TOTAL 1940.90 MEAN 5.32 MAX 170 MIN .22 AC-FT 3850
WTR YR 1979 TOTAL 3094.52 MEAN 8.48 MAX 170 MIN .95 AC-FT 6140

08387800 EAGLE CREEK NEAR ALTO, NM

LOCATION.--Lat 33°23'29", long 105°36'39", in SW¼SE¼SE¼ sec.31, T.10 S., R.14 E., Lincoln County, Hydrologic Unit 13060008, on left bank 200 ft (60 m) north of Lincoln National Forest boundary, 500 ft (152 m) northeast of windmill, and 4.0 mi (6.4 km) east of Alto. Mouth at Rio Ruidoso mile 11.3 (18.2 km).

DRAINAGE AREA.--15.7 mi² (40.7 km²).

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,840 ft (2,085 m), from topographic map.

REMARKS.--Records good. Discharge at this station is affected by Alto Reservoir and municipal water supply diversions for Ruidoso and Capitan. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 1.88 ft³/s (0.053 m³/s), 1,360 acre-ft/yr (1.68 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 431 ft³/s (12.206 m³/s) Dec. 19, 1978, gage height, 3.76 ft. (1.146 m); from rating curve extended above 70 ft³/s (1.98 m³/s) on basis of slope area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base 25 ft³/s (0.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 12	1430	54	1.529	1.85	0.564
Nov. 25	0630	76	2.152	2.07	0.631
Nov. 25	2000	230	6.514	3.00	0.914
Dec. 19	1200	*431	12.206	3.76	1.146
July 25	2000	169	4.786	2.65	0.817

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.24	5.6	10	9.2	3.8	8.6	9.5	13	4.4	.28	13	.64
2	.05	13	9.2	8.4	3.7	8.6	9.5	12	11	.24	7.5	.60
3	.00	12	7.8	8.1	4.6	7.3	9.2	11	11	.20	3.8	.56
4	.00	13	6.1	7.0	4.8	6.6	8.1	9.2	11	16	.64	.52
5	.00	11	5.9	4.8	5.4	5.9	7.3	7.5	12	13	.31	.48
6	.00	9.8	5.4	5.7	4.2	6.8	5.9	6.3	13	.09	.28	.48
7	.00	6.8	4.0	5.0	3.0	7.3	5.7	7.3	12	.04	.28	.45
8	.00	5.9	3.0	4.4	2.7	8.1	7.0	7.3	9.2	.01	3.6	.42
9	.00	5.0	2.0	3.8	2.4	7.8	10	7.3	7.8	.00	2.8	.39
10	.00	4.2	2.8	5.2	3.0	11	12	7.8	7.5	.00	1.6	.37
11	.00	16	3.5	6.6	5.0	11	11	5.9	4.8	.00	1.2	.34
12	.00	34	3.2	7.5	4.8	10	8.1	3.8	3.2	.00	.69	.31
13	.00	38	4.4	7.0	5.0	9.2	6.6	2.3	1.8	.00	.69	.26
14	.00	18	3.7	5.9	6.8	9.8	5.9	2.7	1.6	.00	.85	.24
15	.00	13	1.9	5.9	9.8	12	6.1	2.2	1.0	.00	2.1	.22
16	.00	10	1.9	6.3	13	13	9.8	2.8	1.4	.06	6.0	.18
17	.00	8.4	2.1	7.8	14	14	13	7.8	1.6	.00	19	.16
18	.00	6.6	6.2	14	14	14	16	8.4	1.2	.00	18	3.5
19	.00	5.7	162	11	13	12	17	6.6	1.2	.00	14	2.3
20	.00	4.6	84	10	12	9.8	16	7.8	1.1	.00	8.9	.60
21	.00	4.4	48	8.9	11	9.8	16	6.3	1.0	.00	4.6	.39
22	.00	5.0	32	7.8	12	11	14	4.0	.90	.00	1.6	1.3
23	.00	5.0	26	5.2	11	11	13	1.7	.80	.00	1.6	.39
24	.21	12	21	5.7	10	11	13	3.9	.70	.00	3.2	.37
25	1.6	80	18	7.0	8.1	11	16	2.1	.60	18	1.1	.34
26	2.4	36	16	6.3	7.8	11	15	2.3	.50	7.4	.85	.34
27	1.7	26	14	6.3	8.4	11	16	6.6	.40	1.4	.79	.31
28	1.2	18	13	6.3	8.1	7.8	16	6.3	.30	.00	.79	.31
29	.91	14	11	6.6	---	8.9	15	3.5	.31	.03	.73	.31
30	.91	12	12	3.9	---	8.9	13	3.0	.31	.00	.69	.31
31	1.7	---	14	3.6	---	10	---	4.8	---	1.1	.69	---
TOTAL	10.92	453.0	554.1	211.2	211.4	304.2	340.7	183.5	123.62	57.85	121.88	17.39
MEAN	.35	15.1	17.9	6.81	7.55	9.81	11.4	5.92	4.12	1.87	3.93	.58
MAX	2.4	80	162	14	14	14	17	13	13	18	19	3.5
MIN	.00	4.2	1.9	3.6	2.4	5.9	5.7	1.7	.30	.00	.28	.16
AC-FT	22	899	1100	419	419	603	676	364	245	115	242	34

CAL YR 1978 TOTAL 1153.05 MEAN 3.16 MAX 162 MIN .00 AC-FT 2290
WTR YR 1979 TOTAL 2589.76 MEAN 7.10 MAX 162 MIN .00 AC-FT 5140

08390500 RIO HONDO AT DIAMOND A RANCH, NEAR ROSWELL, NM

LOCATION.--Lat 33°20'57", long 104°51'05", in NE¼NE¼ sec.20, T.11 S., R.21 E., Chaves County, Hydrologic Unit 13060008, on right bank 15 ft (5 m) downstream from county road bridge at Diamond A Ranch, 1.3 mi (2.1 km) south of U.S. Highway 70-380, 13 mi (21 km) upstream from Two Rivers Reservoir, 21 mi (34 km) upstream from mouth of Rocky Arroyo, 18 mi (29 km) west of Roswell, and at mile 44.7 (71.9 km).

DRAINAGE AREA.--947 mi² (2,450 km²), contributing area.

PERIOD OF RECORD.--May 1908 to August 1909, May 1939 to current year. Monthly discharge only for 1908-9, published in Technical Report No. 7, State of New Mexico, Streamflow and Reservoir Content 1888-1954.

REVISED RECORDS.--WSP 1392: Drainage area. WSP 1512: 1939-40(P), 1941, 1942-43(P), 1946(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,190 ft (1,277 m), from topographic map. Prior to Nov. 11, 1965 at site on opposite bank at same datum. Supplemental water-stage recorder on opposite bank Nov. 11, 1965, to December 1972, at same datum.

REMARKS.--Records fair. Diversions and ground-water withdrawals above station for irrigation above and below station of about 6,500 acres (26 km²), 1959 determination. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--40 years (1939-79) 22.2 ft³/s (0.629 m³/s), 16,080 acre-ft/yr (19.8 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 54,800 ft³/s (1,550 m³/s) June 18, 1965, gage height, 26.40 ft (8.047 m), from rating curve extended above 3,000 cfs (85.0 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 28.78 ft (8.772 m), Sept. 22, 1941; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--A flood on June 1, 1937, reached a discharge of 24,900 ft³/s (705 m³/s) at Riverside about 13 mi (21 km) upstream. Other major floods occurred Oct. 31, 1901, Sept. 29, 30, 1904, and July 25, 1905.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft³/s (28.3 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 20	1000	3,900	110	24.45	7.452
June 9	0400	*9,370	265	25.13	7.660

No flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	92	142	53	55	55	114	35	.00	.00	4.7
2	.00	.00	85	130	57	54	56	93	88	.00	.00	.74
3	.00	39	78	120	51	56	52	80	149	.00	.00	.00
4	.00	57	77	110	49	57	44	75	256	.00	.00	.00
5	.00	61	72	95	50	55	40	52	197	.00	.00	.00
6	.00	64	69	105	55	48	35	35	166	.00	.00	.00
7	.00	63	71	116	55	47	34	20	136	.00	.00	.00
8	.00	59	74	114	52	42	33	15	125	.00	.00	.00
9	.00	49	66	109	46	40	38	13	1400	.00	.00	.00
10	.00	46	55	101	43	42	48	21	176	.00	.00	.00
11	.00	51	58	94	42	48	62	21	105	.00	.00	.00
12	.00	137	55	90	41	53	70	20	77	.00	.00	.00
13	.00	270	58	86	41	56	64	16	67	.00	.00	.00
14	.00	256	57	84	40	57	51	14	51	.00	.00	.00
15	.00	199	56	80	39	60	41	11	36	.00	.00	.00
16	.00	169	54	77	46	68	43	9.9	30	.00	.00	.00
17	.00	140	52	74	65	80	53	9.9	22	.00	6.5	.00
18	.00	116	52	83	80	89	70	10	17	.00	29	.00
19	.00	101	57	110	90	85	108	10	11	.00	23	.00
20	.00	75	2150	120	88	94	129	10	7.9	.00	14	.00
21	.00	62	938	110	82	90	118	14	5.1	.00	9.1	.00
22	.54	58	544	100	88	89	112	18	.51	.00	4.0	.00
23	.06	56	386	91	87	85	110	12	.00	.00	.45	.00
24	.27	52	319	86	79	72	101	9.1	.00	.00	21	.00
25	.00	66	259	84	76	66	114	9.9	.00	.00	6.1	.00
26	.00	213	222	82	68	60	120	17	.00	.00	.13	.00
27	.79	259	187	75	63	51	125	26	4.4	.00	162	.00
28	.60	220	174	70	57	51	142	38	.14	.00	13	.00
29	.34	170	160	65	---	50	147	47	.00	.00	9.9	.00
30	.00	130	148	60	---	53	132	45	.00	.00	6.1	.00
31	.00	---	146	54	---	54	---	36	---	.00	.24	---
TOTAL	2.60	3238.00	6875	2917	1683	1907	2347	921.8	3162.05	.00	304.52	5.44
MEAN	.084	108	222	94.1	60.1	61.5	78.2	29.7	105	.000	9.82	.18
MAX	.79	270	2150	142	90	94	147	114	1400	.00	162	4.7
MIN	.00	.00	52	54	39	40	33	9.1	.00	.00	.00	.00
AC-FT	5.2	6420	13640	5790	3340	3780	4660	1830	6270	.00	604	11

CAL YR 1978 TOTAL 11969.51 MEAN 32.8 MAX 2150 MIN .00 AC-FT 23740
WTR YR 1979 TOTAL 23363.41 MEAN 64.0 MAX 2150 MIN .00 AC-FT 46340

08390600 TWO RIVERS RESERVOIR NEAR ROSWELL, NM

LOCATION.--08390610 Rio Hondo Reservoir: Lat 33°17'55", long 104°43'20", in SW¼SE¼NE¼ sec.4, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, near center of Diamond A Dam on Rio Hondo, 13 mi (20.9 km) southwest of Roswell at mile 33.4 (53.7 km); 08390620 Rocky Arroyo Reservoir: Lat 33°16'20", long 104°43'20", in NW¼SE¼NE¼ sec.16, T.12 S., R.22 E., at left end of Rocky Dam on Rocky Arroyo, and 14 mi (22.5 km) southwest of Roswell.

DRAINAGE AREA.--1,027 mi² (2,660 km²); Rio Hondo, 963 mi² (2,494 km²); Rocky Arroyo, 64 mi² (166 km²).

PERIOD OF RECORD.--July 1963 to current year. Prior to October 1965 (monthend contents only). Prior to October 1966 contents at 0800 hours.

GAGE.--Water-stage recorders. Datum of gages is National Geodetic Vertical Datum of 1929.

REMARKS.--Two Rivers Reservoir, completed July 16, 1963, is formed by earthfill dams on Rio Hondo, which forms Rio Hondo Reservoir; and Rocky Arroyo which forms Rocky Arroyo Reservoir. Above elevation 3,980.0 ft (1,213.10 m) the pools of the two reservoirs combine to form Two Rivers Reservoir with a total capacity of 166,200 acre-ft (205 hm³) at elevation 4,032.0 ft (1,228.95 m) crest of ungated spillway. Capacity of Rio Hondo Reservoir, 181 acre-ft (223,000 m³) between elevations 3,957.0 ft (1,206.09 m), sill of outlet gate, and 3,980.0 ft (1,213.10 m). Capacity of Rocky Arroyo Reservoir, 13,410 acre-ft (16.5 hm³) between elevations 3,945.0 ft (1,202.44 m), sill of outlet gate, and 3,980.0 ft (1,213.10 m). No dead storage in Rio Hondo Reservoir, or Rocky Arroyo Reservoir. Primary objective of project is flood control. Outlet conduits in Rocky Dam have fixed openings. Figures given herein represent total contents at 2400 hours.

COOPERATION.--Records furnished by Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents at 0800 hours of Rio Hondo Reservoir, 1,260 acre-ft (1.55 hm³) July 29, 1965, elevation, 3,985.7 ft (1,214.84 m); Rocky Arroyo Reservoir at 0800 hours, 6,090 acre-ft (7.51 hm³) June 18, 1965, elevation, 3,970.7 ft (1,210.27 m); no contents both reservoirs most of time.

EXTREMES FOR CURRENT YEAR.--Maximum contents at 0800 hours of Rio Hondo Reservoir, 774 acre-ft (954,300 m³) Dec. 21, elevation, 3,985.8 ft. (1,214.87); Rocky Arroyo Reservoir at 2400 hours, 2,450 acre-ft (3.02 hm³) Dec. 23, elevation, 3,964.25 ft (1,208.30 m); no contents both reservoirs most of the time.

CONTENTS, IN ACRE-FEET, AND ELEVATION, IN FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

NO CONTENTS DURING YEAR EXCEPT:

RIO HONDO RESERVOIR

DATE	ELEVATION	CONTENTS
DEC. 20	3978.30	106
21	3985.80	774
22	3985.25	730
23	No Report	-
24	No Report	-
25	No Report	-
26	No Report	-
27	3984.30	566
28	3982.50	369
29	3980.30	199

ROCKY ARROYO RESERVOIR

DATE	ELEVATION	CONTENTS
Dec. 20	3955.09	472
21	3963.60	2230
22	3963.60	2230
23	3964.25	2450
24	3961.81	1720
25	3960.37	1370
26	3958.02	1090
27	3955.95	574
28	3945.00	0
29		0

08390800 RIO HONDO BELOW DIAMOND A DAM, NEAR ROSWELL, NM

LOCATION.--Lat 33°18'05", long 104°43'12", in NE¼SE¼NE¼ sec. 4, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, on left bank, 500 ft (152 m) downstream from outlet conduit of Diamond A dam (Two Rivers Reservoir), 13 mi (20.9 km) southwest of Roswell, and at mile 33.3 (53.6 km). Mouth at Pecos River mile 566.0 (910.7 km).

DRAINAGE AREA.--963 mi^2 (2,490 km^2), contributing area.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,949.68 ft (1,203.862 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark).

REMARKS.--Records fair. Diversions and ground-water withdrawals for irrigation of about 6,500 acres (26 km^2), 1959 determination, above station. This record represents the outflow from Two Rivers Reservoir through Diamond A Dam. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--16 years, 9.49 ft^3/s (0.269 m^3/s), 6,880 acre-ft/yr (8.48 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 659 ft^3/s (18.7 m^3/s) July 29, 1965, gage height, 4.91 ft (1.497 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 562 ft^3/s (15.9 m^3/s) Dec. 20, gage height, 4.04 ft (1.231 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	88	111	55	50	50	86	22	.00	.00	.00
2	.00	.00	75	103	58	50	49	70	41	.00	.00	.00
3	.00	.00	69	103	54	51	45	66	110	.00	.00	.00
4	.00	6.0	65	92	52	53	38	70	170	.00	.00	.00
5	.00	42	61	79	53	54	34	49	150	.00	.00	.00
6	.00	42	57	82	56	45	27	30	130	.00	.00	.00
7	.00	42	57	85	55	45	24	19	100	.00	.00	.00
8	.00	39	56	86	52	41	23	11	71	.00	.00	.00
9	.00	33	55	85	50	38	27	6.1	227	.00	.00	.00
10	.00	30	54	80	46	41	33	12	195	.00	.00	.00
11	.00	32	54	78	46	45	45	15	85	.00	.00	.00
12	.00	65	50	74	44	49	55	20	58	.00	.00	.00
13	.00	168	51	71	42	52	50	18	53	.00	.00	.00
14	.00	160	51	71	42	54	42	14	49	.00	.00	.00
15	.00	137	47	66	41	58	29	11	30	.00	.00	.00
16	.00	120	45	65	44	62	31	8.0	23	.00	.00	.00
17	.00	106	44	69	59	70	32	6.7	17	.00	.00	.00
18	.00	91	44	71	69	77	49	4.3	11	.00	.10	.00
19	.00	78	45	91	78	74	68	4.5	5.2	.00	18	.00
20	.00	64	230	100	77	78	85	5.3	.46	.00	12	.00
21	.00	49	91	95	73	77	83	7.6	.00	.00	6.0	.00
22	.00	47	.08	91	75	73	78	13	.00	.00	2.0	.00
23	.00	43	.00	88	77	69	78	7.4	.00	.00	.00	.00
24	.00	37	.00	83	77	59	70	.52	.00	.00	1.5	.00
25	.00	40	.00	79	73	50	78	.02	.03	.00	4.9	.00
26	.00	103	.00	79	66	51	82	22	.00	.00	.00	.00
27	.00	160	117	80	62	42	86	14	.00	.00	92	.00
28	.00	141	145	77	56	42	97	22	.00	.00	17	.00
29	.00	118	203	69	---	49	101	32	.00	.00	8.0	.00
30	.00	101	103	70	---	48	101	34	.00	.00	3.2	.00
31	.00	---	105	65	---	51	---	29	---	.00	4.9	---
TOTAL	.00	2094.00	2062.08	2538	1632	1698	1690	707.44	1547.69	.00	169.60	.00
MEAN	.000	69.8	66.5	81.9	58.3	54.8	56.3	22.8	51.6	.000	5.47	.000
MAX	.00	168	230	111	78	78	101	86	227	.00	92	.00
MIN	.00	.00	.00	65	41	38	23	.02	.00	.00	.00	.00
AC-FT	.00	4150	4090	5030	3240	3370	3350	1400	3070	.00	336	.00

CAL YR 1978 TOTAL 4676.44 MEAN 12.8 MAX 230 MIN .00 AC-FT 9280
WTR YR 1979 TOTAL 14138.81 MEAN 38.7 MAX 230 MIN .00 AC-FT 28040

08393200 ROCKY ARROYO ABOVE TWO RIVERS RESERVOIR, NEAR ROSWELL, NM

LOCATION.--Lat 33°17'07", long 104°47'47", in NE¼SW¼ sec. 11, T.12, S., R.21½ E., Chaves County, Hydrologic Unit 13060008, on left bank, 2.1 mi (3.4 km) upstream from mouth of Buchnan Draw, 5.2 mi (8.4 km) upstream from Rocky Dam (Two Rivers Reservoir), and 17 mi (27.4 km) southwest of Roswell.

DRAINAGE AREA.--31 mi² (80 km²), approximately.

PERIOD OF RECORD.--May 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,059.17 ft (1,237.235 m) Corps of Engineers datum. Prior to Dec. 7, 1968, at site on opposite bank at datum 3.72 ft (1.134 m) lower.

REMARKS.--Records good. No diversions above station. Flow past station represents inflow to Two Rivers Reservoir.

AVERAGE DISCHARGE.--16 years, 0.82 ft³/s (0.023 m³/s), 594 acre-ft/yr (732,000 m³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s (340 m³/s) July 5, 1968, gage height, 11.53 ft (3.514 m), from floodmarks, present datum, from rating curve extended above 350 ft³/s (9.91 m³/s) on basis of slope-area measurements at gage heights 5.92 ft (1.804 m), 7.14 ft (2.176 m), and 11.53 ft (3.514 m), present datum; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 266 ft³/s (7.53 m³/s) at 1600 hours Aug. 20, gage height, 3.23 ft (0.985 m), no other peak above base of 90 ft³/s (2.5 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	28	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	1.2	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	29.20	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.94	.000
MAX	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	28	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	58	.00

CAL YR 1978 TOTAL 44.42 MEAN .12 MAX 28 MIN .00 AC-FT 88
WTR YR 1979 TOTAL 29.20 MEAN .080 MAX 28 MIN .00 AC-FT 58

08393300 ROCKY ARROYO BELOW ROCKY DAM, NEAR ROSWELL, NM

LOCATION.--Lat 33°16'11", long 104°43'13", in SE¼SE¼NE¼ sec. 16, T.12 S., R.22 E., Chaves County, Hydrologic Unit 13060008, on left bank, 300 ft (90 m) downstream from outlet structure in Rocky Dam (Two Rivers Reservoir) and 13.5 mi (21.7 km) southwest of Roswell.

DRAINAGE AREA.--64 mi² (166 km²), approximately.

PERIOD OF RECORD.--May 1963 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,935.66 ft (1,199.589 m) National Geodetic Vertical Datum of 1929 (Corps of Engineers bench mark). Prior to Jan. 12, 1972, at site 1.4 mi (2.3 km) downstream at datum 28.76 ft (8.766 m) lower.

REMARKS.--Records good. No diversions above station. This record represents the outflow from Two Rivers Reservoir through Rocky Dam. Outlet conduits in Rocky Dam have fixed openings.

AVERAGE DISCHARGE.--16 years, 1.71 ft³/s (0.048 m³/s), 1,240 acre-ft/yr (1.53 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 548 ft³/s (15.5 m³/s) Aug. 21, 1966, gage height, 4.57 ft (1.393 m), site and datum then in use, from rating curve extended above 260 ft³/s (7.36 m³/s); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 282 ft³/s (7.986 m³/s) Dec. 22, gage height, 3.07 ft (0.936 m); no flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.51	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.28	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	90	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	258	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	276	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	230	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	192	.00	.00	.00	.00	.00	.04	.00	.00	.00
25	.00	.00	190	.00	.00	.00	.00	.00	.03	.00	.00	.00
26	.00	.00	184	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	170	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	133	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	33	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	1.2	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.03	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	1757.23	.11	.00	.00	.00	.00	.86	.00	.00	.00
MEAN	.000	.000	56.7	.004	.000	.000	.000	.000	.029	.000	.000	.000
MAX	.00	.00	276	.03	.00	.00	.00	.00	.51	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	3490	.2	.00	.00	.00	.00	1.7	.00	.00	.00

CAL YR 1978 TOTAL 1757.58 MEAN 4.82 MAX 276 MIN .00 AC-FT 3490
WTR YR 1979 TOTAL 1758.20 MEAN 4.82 MAX 276 MIN .00 AC-FT 3490

08394100 PECOS RIVER NEAR HAGERMAN, NM

LOCATION.--Lat 33°10'08", long 104°18'24", in SE¼SW¼SE¼ sec. 23, T.13 S., R.26 E., Chaves County, Hydrologic Unit 13060007, on left bank 3.4 mi (5.5 km) upstream from Rio Felix, 4.9 mi (7.9 km) north of Hagerman, and at mile 544.6 (876.3 km).

DRAINAGE AREA.--13,630 mi² (35,300 km²), approximately (contributing area).

PERIOD OF RECORD.--February 1968 to current year (operated as a low-flow station only).

GAGE.--Water-stage recorder. Altitude of gage is 3,390 ft (1,033 m), from topographic map.

REMARKS.--Records poor. Flow partly regulated by Lake Sumner (station 08384000). Diversions and ground-water withdrawals for irrigation of about 80,000 acres (320 km²) above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined; no flow at times in 1971, 1974, 1976, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge not determined; minimum 7.8 ft³/s (0.221 m³/s) Aug. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	57	102	145	62	48	22	43	258	124	223	100
2	20	56	91	145	62	45	22	32	1360	96	114	172
3	20	55	79	145	61	44	22	46	402	80	91	149
4	20	59	70	145	60	43	21	57	213	77	123	113
5	20	77	66	133	60	42	20	40	237	70	67	91
6	22	117	63	117	65	40	19	29	396	72	42	72
7	25	114	60	117	68	37	18	24	266	173	29	65
8	30	87	63	118	64	36	17	19	202	230	22	58
9	29	77	63	122	59	34	19	16	334	129	18	50
10	25	66	63	124	55	34	19	14	1020	137	15	41
11	20	60	73	120	57	33	20	11	716	128	13	34
12	20	63	74	120	58	34	19	15	1580	276	12	28
13	20	64	63	115	57	34	19	14	1610	190	11	26
14	19	84	67	113	56	34	20	13	1500	133	10	22
15	17	137	71	110	54	36	20	12	1500	86	9.2	20
16	17	135	70	113	54	37	19	16	891	61	9.2	21
17	16	127	72	110	55	36	21	28	489	48	9.7	25
18	16	115	76	102	56	33	21	29	544	57	12	24
19	15	102	74	79	60	27	22	22	642	62	21	25
20	15	93	70	71	65	27	24	177	575	48	509	26
21	16	85	202	68	67	25	26	673	418	38	217	26
22	17	76	265	62	70	24	27	851	320	32	127	23
23	23	74	262	59	68	22	24	834	266	29	85	23
24	46	66	248	66	71	22	19	790	237	25	102	20
25	75	58	227	81	67	22	17	846	345	22	142	20
26	105	55	223	86	62	21	16	922	296	19	92	17
27	88	68	218	80	56	22	19	992	321	119	205	16
28	72	124	254	76	52	22	18	1210	186	131	997	16
29	65	135	250	75	---	21	22	1070	139	352	374	22
30	61	118	232	70	---	20	35	873	171	192	340	20
31	58	---	160	64	---	22	---	343	---	131	208	---
TOTAL	1032	2604	3971	3151	1701	977	627	10061	17434	3367	4249.1	1365
MEAN	33.3	86.8	128	102	60.8	31.5	20.9	325	581	109	137	45.5
MAX	105	137	265	145	71	48	35	1210	1610	352	997	172
MIN	15	55	60	59	52	20	16	11	139	19	9.2	16
AC-FT	2050	5170	7880	6250	3370	1940	1240	19960	34580	6680	8430	2710

WTR YR 1979 TOTAL 50539.1 MEAN 138 MAX 1610 MIN 9.2 AC-FT 100200

08394500 RIO FELIX AT OLD HIGHWAY BRIDGE, NEAR HAGERMAN, NM

LOCATION.--Lat 33°07'30", long 104°20'40", in SW¼SW¼SE¼ sec.4, T.14 S., R.26 E., Chaves County, Hydrologic Unit 13060009, near left bank on downstream side of abandoned bridge pier, 0.6 mi (1.0 km) upstream from alternate U.S. Highway 285, 1.3 mi (2.1 km) northwest of Hagerman, and 2.7 mi (4.3 km) upstream from mouth. Mouth at Pecos River mile 541.4 (871.1 km).

DRAINAGE AREA.--932 mi^2 (2,410 km^2), contributing area.

PERIOD OF RECORD.--April 1939 to current year. March 1932 to April 1939 at site 1 mi (1.6 km) downstream; records for periods of low flow not equivalent, owing to inflow between sites.

REVISED RECORDS.--WSP 928: 1940(M). WSP 1562: 1939-40, 1941(M).

GAGE.--Water-stage recorder. Datum of gage is 3,403.40 ft (1,037.356 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records fair. Diversions for irrigation of about 350 acres (1.4 km^2), 1959 determination, above station.

AVERAGE DISCHARGE.--40 years, 14.9 ft^3/s (0.422 m^3/s), 10,800 acre-ft/yr (13.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,000 ft^3/s (2,100 m^3/s) Oct. 7, 1954, gage height, 27.5 ft (8.38 m), from floodmarks, from rating curve extended above 12,000 ft^3/s (340 m^3/s) on basis of slope-area measurement at point 5.5 mi (8.8 km) upstream from gage (adjusted for channel storage); no flow for many periods.
Flood in 1954 is the highest since 1894 (information from local residents).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 1, 1904, is probably second highest since 1894; another major flood occurred in April 1915.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,150 ft^3/s (60.9 m^3/s) at 2200 hours Aug. 26, gage height 11.73 ft (3.575 m); no flow, most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.01	.03	34	.00	37	28	.00	18	.00	.00	.00	.00
2	.00	.02	28	.00	28	27	.00	41	.00	.00	.00	.00
3	.01	.68	28	.00	36	32	.00	60	.00	.00	.00	.00
4	.34	4.3	26	.00	33	50	.00	70	43	.00	.00	.00
5	.00	6.7	25	.00	31	39	.00	66	35	.00	.00	.00
6	.00	11	26	.00	35	13	.00	54	6.1	.00	.00	.00
7	.00	20	25	.00	44	.73	.00	23	.00	1.4	.00	.00
8	.00	22	27	.00	44	.00	.00	.04	14	.51	.00	.00
9	.00	21	33	.00	44	.00	.00	.00	21	.00	.00	.00
10	.00	17	33	.00	44	.00	.00	.00	52	.00	.00	.00
11	.00	14	31	.00	26	.00	1.4	.00	54	.00	.00	.00
12	.00	18	21	.00	23	.00	4.7	.00	9.9	.00	.00	.00
13	.00	20	23	.00	21	.00	14	.00	8.0	.00	.00	.00
14	.00	45	16	.00	20	.00	.05	.00	4.3	.00	.00	.00
15	.00	39	5.7	.00	17	.00	1.1	.00	9.7	.00	.00	.00
16	.00	38	9.1	.00	12	.00	.08	.64	7.2	.00	.00	.00
17	.00	37	9.6	.00	18	.00	.75	4.7	.15	.00	.00	.00
18	.00	34	3.4	.00	36	.00	.00	9.0	.00	.00	.00	.00
19	.00	32	6.9	27	52	.75	.00	.00	.00	.00	.00	.00
20	.00	28	9.4	50	52	.00	5.6	.00	.00	.00	1.7	.00
21	.00	24	3.2	63	43	.00	15	.00	.00	.00	11	.00
22	.00	18	.13	67	50	.00	18	.00	.00	.00	2.0	.00
23	.00	16	.01	70	48	.00	5.0	.00	.00	.00	.00	.00
24	20	20	.00	44	45	.00	.00	.00	.00	.00	.00	.00
25	12	23	.00	38	57	.00	.00	.01	.06	.00	.47	.00
26	2.6	21	.00	39	59	.00	.00	83	.00	.00	215	.00
27	.20	36	.00	35	61	.00	.00	60	.00	.00	116	.00
28	.02	47	.00	38	52	.00	.00	5.9	.00	.00	.01	.00
29	.02	45	.00	41	---	.00	3.6	.00	.00	.00	1.1	.00
30	.01	40	.00	36	---	.00	27	.00	.00	.00	.00	.00
31	.02	---	.00	34	---	.00	---	.00	---	.00	.00	---
TOTAL	35.23	697.73	423.44	582.00	1068	190.48	96.28	495.29	264.41	1.91	347.28	.00
MEAN	1.14	23.3	13.7	18.8	38.1	6.14	3.21	16.0	8.81	.062	11.2	.000
MAX	20	47	34	70	61	50	27	83	54	1.4	215	.00
MIN	.00	.02	.00	.00	12	.00	.00	.00	.00	.00	.00	.00
AC-FT	70	1380	840	1150	2120	378	191	982	524	3.8	689	.00

CAL YR 1978 TOTAL 4395.68 MEAN 12.0 MAX 2100 MIN .00 AC-FT 8720
WTR YR 1979 TOTAL 4202.05 MEAN 11.5 MAX 215 MIN .00 AC-FT 8330

08395500 PECOS RIVER NEAR LAKE ARTHUR, NM

LOCATION.--Lat 32°59'18", long 104°19'20", in SW¼NE¼ sec.27, T.15 S., R.26 E., Chaves County, Hydrologic Unit 1306007, on left bank 400 ft (120 m) upstream from county bridge, 2.5 mi (4.0 km) east of Lake Arthur, 7 mi (11.3 km) upstream from Cottonwood Creek, 11 mi (17.7 km) northeast of Artesia, and at mile 522.0 (839.9 km).

DRAINAGE AREA.--14,760 mi² (38,230 km²), approximately (contributing area).

PERIOD OF RECORD.--August 1938 to current year.

GAGE.--Water-stage recorder and rock control. Datum of gage is 3,327.07 ft (1,014.091 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. Flow partly regulated by Lake Sumner (station 08384000). Diversions and ground-water withdrawals for irrigation of about 124,000 acres (500 km²), 1959 determination, above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,600 ft³/s (1,410 m³/s) Sept. 24, 1941, gage height, 21.90 ft (6.675 m), from rating curve extended above 16,100 ft³/s (456 m³/s) on basis of slope-area measurement at gage height 21.77 ft (6.635 m); no flow at times in 1947, 1953-4, 1962, 1964.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of May 30, 1937, reached a stage of 21.77 ft (6.635 m), discharge, 51,500 ft³/s (1,460 m³/s), on basis of slope-area measurement of peak flow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,360 ft³/s (38.5 m³/s) Aug. 28, gage height 5.23 ft (1.594 m); minimum 6.2 ft³/s (0.176 m³/s) Apr. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	36	64	143	158	103	88	15	57	238	147	194	212
2	38	64	128	128	103	78	17	48	888	124	211	138
3	40	62	115	125	98	74	19	48	499	79	142	234
4	36	85	107	160	98	76	16	78	281	50	135	151
5	33	100	100	143	99	80	17	79	257	47	124	105
6	31	99	96	136	98	78	15	62	376	44	78	75
7	30	134	94	125	99	64	8.9	47	414	45	56	61
8	31	119	95	125	105	55	11	33	230	221	40	51
9	30	106	76	127	104	52	15	18	221	147	25	47
10	31	95	87	128	99	46	14	17	925	84	20	45
11	32	86	125	128	94	43	11	21	794	94	16	35
12	30	82	104	126	89	43	15	20	1170	118	14	31
13	29	85	84	126	86	37	25	27	1250	167	13	26
14	28	91	90	122	83	35	33	27	1240	158	14	24
15	27	139	90	120	80	35	28	25	1220	92	14	22
16	26	165	82	119	79	33	31	27	1010	56	13	21
17	25	157	84	120	78	31	29	40	620	38	12	20
18	24	146	89	122	79	30	31	47	586	25	12	16
19	23	134	86	117	86	33	30	46	732	30	19	12
20	22	123	87	113	94	32	30	36	700	34	380	14
21	21	115	104	121	98	29	27	576	567	26	377	14
22	25	107	272	128	98	26	34	793	432	23	194	20
23	40	97	241	126	102	23	41	833	342	22	138	18
24	45	93	219	121	103	20	28	776	233	15	110	22
25	60	92	221	116	99	19	24	826	187	14	144	18
26	80	86	208	124	102	19	19	900	224	15	160	17
27	110	83	205	127	100	20	15	996	233	14	295	14
28	90	116	265	121	94	16	17	972	236	117	825	13
29	75	163	291	119	---	15	20	1000	202	310	349	14
30	70	157	297	117	---	14	39	854	158	297	478	14
31	65	---	197	109	---	14	---	461	---	143	304	---
TOTAL	1283	3245	4482	3897	2650	1258	674.9	9790	16465	2796	4906	1504
MEAN	41.4	108	145	126	94.6	40.6	22.5	316	549	90.2	158	50.1
MAX	110	165	297	160	105	88	41	1000	1250	310	825	234
MIN	21	62	76	109	78	14	8.9	17	158	14	12	12
AC-FT	2540	6440	8890	7730	5260	2500	1340	19420	32660	5550	9730	2980

CAL YR 1978 TOTAL 50571.5 MEAN 139 MAX 2200 MIN 2.4 AC-FT 100300
WTR YR 1979 TOTAL 52950.9 MEAN 145 MAX 1250 MIN 8.9 AC-FT 105000

08396500 PECOS RIVER NEAR ARTESIA, NM
(Surveillance program station)

LOCATION.--Lat 32°50'25", long 104°19'23", in NW¼NW¼ sec.18, T.17 S., R.27 E., Eddy County, Hydrologic Unit 13060007, near left bank on downstream end of bridge pier on State Highway 83, 4.3 mi (6.9 km) east of Artesia, 7.0 mi (11.3 km) upstream from Rio Peñasco, 17 mi (27.4 km) upstream from McMillan Dam, and at mile 503.9 (810.8 km).

DRAINAGE AREA.--15,300 mi^2 (39,630 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1905 to June 1909, August 1909 to current year. Monthly discharge only for some periods, published in WSP 1312 and 1712. Records for Aug. 22-31, 1934, and October 1936 to April 1937, published in WSP 763 and 828, respectively are not reliable and should not be used. Prior to February 1936, published as "near Dayton."

REVISED RECORDS.--WSP 1312 and 1512: 1913, 1915, 1917-18(M), 1920, 1923, 1931-36. WSP 1712: 1906(M), 1908-11(M), 1919, 1921-23(M), 1929, 1931-32(M), 1935-36(M), 1937, 1939(M), 1941(M). See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 3,291.92 ft (1,003.376 m) National Geodetic Vertical Datum of 1929. Prior to Aug. 27, 1914, nonrecording gage and Aug. 27, 1914, to Feb. 20, 1936, water-stage recorder at site 6.5 mi (10.5 km) downstream at different datum. Feb. 21, 1936, to Apr. 4, 1941, water-stage recorder at site 600 ft (183 m) downstream at different datum.

REMARKS.--Water-discharge records fair. Flow partly regulated by Lake Sumner (station 08384000) since August 1937. Diversions and ground-water withdrawals for irrigation of about 154,000 acres (620 km^2), 1959 determination, above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge probably occurred May 30, 1937, when a discharge of 51,500 ft^3/s (1,460 m^3/s) was measured by slope-area method at a point 15 mi (24.1 km) upstream, gage height, 14.7 ft (4.48 m), site and datum then in use; no flow at times in 1934, 1946-47, 1953-54, 1957, 1964-65.

EXTREMES OUTSIDE PERIOD OF RECORD.--Greatest flood since at least 1893 occurred Oct. 2, 1904, discharge not determined; the peak inflow to Lake McMillan, which includes Rio Peñasco and Fourmile Draw, was estimated at 82,000 ft^3/s (2,320 m^3/s). The second highest flood occurred July 25, 1905, discharge below Rio Peñasco, 50,300 ft^3/s (1,420 m^3/s), based on gain in storage and spill from Lake McMillan. The floods in August 1893 and October 1904 damaged McMillan Dam and washed out Avalon Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,180 ft^3/s (33.1 m^3/s) at 0100 hours June 14, gage height, 7.57 ft (2.307 m) no other peak above base of 2,000 ft^3/s (57 m^3/s); minimum, 2.8 ft^3/s (0.079 m^3/s) Aug. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	69	161	163	108	101	14	36	280	90	146	172
2	35	67	142	119	110	97	17	61	659	84	207	99
3	36	68	128	138	104	83	20	46	713	52	184	133
4	34	92	118	150	102	90	17	51	344	44	118	90
5	32	124	111	157	106	93	21	99	253	37	144	60
6	30	102	106	152	104	101	21	75	261	34	98	48
7	29	131	106	138	104	87	17	58	426	32	65	58
8	34	138	104	130	110	65	11	39	226	135	45	43
9	32	121	102	131	112	59	12	19	211	191	30	39
10	33	110	96	136	106	56	13	7.5	612	99	16	39
11	35	99	89	134	99	51	12	5.7	744	64	8.9	30
12	33	89	103	132	96	48	11	9.6	904	59	7.2	27
13	30	89	100	128	92	45	13	10	1120	186	7.1	25
14	29	88	93	126	87	38	28	17	1150	145	6.4	23
15	29	118	103	125	83	36	33	17	1170	110	5.5	21
16	28	171	97	124	88	34	28	17	1060	82	6.6	20
17	27	171	89	126	87	32	25	27	640	54	4.9	18
18	26	163	96	131	83	32	19	37	489	42	4.4	16
19	26	150	98	125	94	40	20	41	625	40	3.9	14
20	24	138	92	111	107	34	18	39	619	39	99	13
21	23	128	96	125	112	33	18	292	513	29	414	13
22	25	121	206	138	111	24	14	695	401	24	166	17
23	37	111	256	136	115	22	27	789	335	17	96	17
24	46	103	244	128	118	17	29	738	243	15	52	17
25	46	99	219	122	112	17	14	770	207	10	41	21
26	88	96	218	132	118	17	10	848	319	9.3	126	12
27	110	89	204	138	115	21	7.8	988	238	9.3	250	11
28	101	96	221	128	111	16	5.5	970	233	34	559	12
29	83	163	280	128	---	14	7.5	1050	170	111	370	15
30	74	176	287	125	---	16	14	918	110	354	373	23
31	71	---	234	118	---	15	---	659	---	128	247	---
TOTAL	1320	3480	4599	4094	2894	1434	516.8	9428.8	15275	2359.6	3900.9	1146
MEAN	42.6	116	148	132	103	46.3	17.2	304	509	76.1	126	38.2
MAX	110	176	287	163	118	101	33	1050	1170	354	559	172
MIN	23	67	89	111	83	14	5.5	5.7	110	9.3	3.9	11
AC-FT	2620	6900	9120	8120	5740	2840	1030	18700	30300	4680	7740	2270

CAL YR 1978 TOTAL 53913.3 MEAN 148 MAX 2720 MIN 1.9 AC-FT 106900
WTR YR 1979 TOTAL 50448.1 MEAN 138 MAX 1170 MIN 3.9 AC-FT 100100

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1937 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1937 to current year.
WATER TEMPERATURES: April 1949 to current year.
SUSPENDED SEDIMENT DISCHARGE: January 1949 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 28,800 micromhos June 24, 1977; minimum daily, 464 micromhos Sept. 23, 1974.
WATER TEMPERATURES: Maximum, 36.0°C July 27, 1966, July 25, 1969; minimum, 0.0°C on many days during winter months of most years.
SEDIMENT CONCENTRATIONS: Maximum daily, 21,300 mg/L Aug. 1, 1962; minimum daily, no flow on many days during July 1953, July and August 1954, July 1957, July to October 1964.
SEDIMENT LOADS: Maximum daily, 183,000 tons (166,000 tonnes) Sept. 26, 1955; minimum daily, 0 tons (0 tonnes) on many days during July 1953, July and August 1954, July 1957, July to October 1964.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 19,400 micromhos Apr. 11; minimum daily, 1,360 micromhos June 15.
WATER TEMPERATURES: Maximum, 33.5°C July 27; minimum, 0.5°C Jan. 2.
SEDIMENT CONCENTRATIONS: Maximum daily, 13,700 mg/L June 9; minimum daily, 6 mg/L on several days in February and March.
SEDIMENT LOADS: Maximum daily, 22,000 tons (20,000 tonnes) June 10; minimum daily, .42 ton (.38 tonne) May 11.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)
OCT										
25...	1030	39	10900	7.8	15.0	12.0	8.6	9.0	180	2300
NOV										
14...	1000	88	6960	7.8	9.5	11.0	39	8.9	44	1500
DEC										
13...	1000	93	6900	8.2	4.0	1.5	130	12.2	62	1900
JAN										
18...	0930	136	4380	8.1	--	8.5	--	--	--	1600
24...	0830	131	5300	8.3	-5.0	3.5	64	10.8	63	1500
FEB										
21...	1100	106	6700	8.5	10.5	10.0	3.3	16.2	43	1800
MAR										
19...	1100	46	9500	8.0	--	15.5	--	--	--	2900
23...	1000	20	14400	8.2	8.5	12.0	18	12.1	160	2900
APR										
19...	1000	20	12800	8.0	23.5	19.5	1.0	8.4	120	3200
25...	1000	13	8500	7.9	--	19.0	--	--	--	2400
MAY										
15...	1400	18	14600	8.1	30.5	24.5	9.0	9.6	99	2700
JUN										
20...	1200	619	1500	8.1	30.5	22.5	960	6.5	100	700
JUL										
23...	1030	20	9000	8.0	30.0	25.0	72	6.8	53	1900
AUG										
10...	0800	24	6750	8.0	26.0	23.0	5.0	7.1	62	1700
SEP										
14. .	0945	23	10200	8.2	20.0	20.0	44	8.0	95	1800

08396500 PECOS RIVER NEAR ARTESIA, NM — Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
OCT										
25...	--	500	260	1600	14	16	--	--	170	1800
NOV										
14...	1400	330	170	950	11	9.1	--	--	160	1400
DEC										
13...	1700	470	170	830	8.3	8.7	--	--	210	1300
JAN										
18...	1400	410	140	650	7.1	3.5	220	0	180	1100
24...	1500	390	130	700	7.8	4.4	--	--	2	1200
FEB										
21...	1800	440	160	900	9.3	8.7	--	--	2	1500
MAR										
19...	2800	660	310	2000	16	16	170	0	140	2500
23...	2800	700	280	2200	18	2.1	--	--	140	2400
APR										
19...	3100	680	370	1900	15	17	--	--	110	2300
25...	2300	560	240	1300	12	14	110	0	90	2000
MAY										
15...	2600	490	370	2300	19	23	--	--	120	2700
JUN										
20...	610	230	30	80	1.3	3.0	--	--	87	590
JUL										
23...	1800	500	170	1400	14	15	--	--	100	1600
AUG										
10...	1600	430	160	1200	13	15	--	--	94	1700
SEP										
14...	1600	490	130	1600	17	19	--	--	110	2000

DATE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT										
25...	2700	.8	9.4	7700	--	30	.66	.71	.09	1.1
NOV										
14...	1500	.7	19	3900	--	258	1.1	1.0	.75	.95
DEC										
13...	1500	.7	16	4860	4430	200	1.3	1.3	1.1	1.1
JAN										
18...	1000	.8	14	3980	3430	--	--	--	--	--
24...	1200	.7	15	3820	3650	94	1.0	.93	.63	.67
FEB										
21...	1500	.7	9.2	4690	4520	0	.47	.46	.19	1.4
MAR										
19...	3500	.9	7.2	9290	9080	--	--	--	--	--
23...	3100	.8	8.2	9620	8780	56	.00	.00	.08	.92
APR										
19...	3400	.8	4.1	9380	8740	54	.02	.01	.13	.97
25...	2300	.9	4.0	6810	6480	--	--	--	--	--
MAY										
15...	3700	.8	9.4	10800	9670	71	.01	.00	.17	1.2
JUN										
20...	110	.5	12	1210	1110	1510	.25	.17	.05	.36
JUL										
23...	2300	.6	14	6170	6060	142	.05	.00	.08	.90
AUG										
10...	1700	.6	14	5220	5280	99	.35	.35	.07	.65
SEP										
14...	2600	.6	13	7090	6920	77	.06	.06	.15	1.1

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT									
25...	1.9	.170	.05	740	10	--	--	3.8	1.2
NOV									
14...	2.8	.310	.01	450	20	--	--	6.7	2.2
DEC									
13...	3.5	.290	.14	380	30	60	6.4	3.0	3.0
JAN									
18...	--	--	--	--	--	--	--	--	--
24...	2.3	.280	.10	280	40	--	--	3.9	3.3
FEB									
21...	2.1	.090	.03	350	10	--	--	3.2	2.0
MAR									
19...	--	--	--	--	--	--	--	--	--
23...	1.0	.060	.01	920	50	480	27	29	2.8
APR									
19...	1.1	.070	.01	870	60	--	--	7.5	2.9
25...	--	--	--	--	--	--	--	--	--
MAY									
15...	1.4	.120	.00	1100	40	--	--	5.8	3.8
JUN									
20...	.66	.840	.00	310	10	10	13	3.9	22
JUL									
23...	1.0	.130	.00	600	20	--	--	5.0	--
AUG									
10...	1.1	.090	.01	560	60	40	6.9	3.5	1.0
SEP									
14...	1.3	.170	.05	720	20	--	--	6.6	1.2

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
DEC										
13...	1000	2	1	100	0	380	0	0	0	0
JAN										
18...	0930	--	--	--	--	--	--	--	--	--
MAR										
19...	1100	--	--	--	--	--	--	--	--	--
23...	1000	2	1	0	0	920	0	0	20	20
APR										
25...	1000	--	--	--	--	--	--	--	--	--
JUN										
20...	1200	4	1	600	0	310	0	0	30	0
AUG										
10...	0800	1	1	0	0	560	1	0	30	0

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
DEC										
13...	2	1	6	0	3900	30	11	5	--	190
JAN										
18...	--	--	--	--	--	--	--	--	50	--
MAR										
19...	--	--	--	--	--	--	--	--	100	--
23...	0	0	1	0	500	50	19	6	--	480
APR										
25...	--	--	--	--	--	--	--	--	80	--
JUN										
20...	12	1	19	1	22000	10	21	0	--	950
AUG										
10...	0	0	5	0	1300	60	3	0	--	100

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
DEC										
13...	60	.1	.0	8	6	0	0	--	40	20
JAN										
18...	--	--	--	--	--	--	--	8000	--	--
MAR										
19...	--	--	--	--	--	--	--	2000	--	--
23...	480	.0	.0	2	2	0	0	--	40	30
APR										
25...	--	--	--	--	--	--	--	10000	--	--
JUN										
20...	10	.0	.2	1	1	0	0	--	90	10
AUG										
10...	40	.2	.3	2	1	0	0	--	10	20

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)
AUG							
10...	0800	1	0	2	2	0	.01

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)
AUG										
10...	0800	.0	0	.00	.0	.0	0	.00	.0	.00

DATE	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)
AUG										
10...	.0	.00	.0	.00	.0	.00	.00	.0	.00	.0

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	METH-OXY-CHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	TOX-APHENE, TOTAL (UG/L) (39400)	TOXA-PHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	PER-THANE TOTAL (UG/L) (39034)	MIREX, TOTAL (UG/L) (39755)
AUG										
10...	.00	.0	.00	.0	.00	.0	0	0	.00	.00

Results of Analysis of Water and Bed Materials for Selected Chlorinated Hydrocarbon Isomers

Date	Time	o-p'-DDE	o-p'-DDD	o-p'DDT	cis-chlordane	trans-chlordane	α-BHC	Hexachloro-benzene	cis-nonachlor
Aug									
10	0800 (w)	0	0	0	0	0	0	0	0
	(s)	0	0	0	0	0	0	0	0

NOTE: Reporting units are ug/L for water samples (w) and ug/kg for bed material sediment samples (s). The lowest detectable limit is 0.01 ug/L for water samples and 0.1 ug/kg for sediment samples.

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
25...	1030	350	120
NOV			
14...	1000	1200	2300
DEC			
13...	1000	4100	1600
JAN			
24...	0830	5	270
FEB			
21...	1100	1800	500
MAR			
23...	1000	3	64
APR			
19...	1000	19	74
MAY			
15...	1400	43	71
JUN			
20...	1200	200	950
JUL			
23...	1030	67	210
AUG			
10...	0800	270	500
SEP			
14...	0945	140	1200

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

WATER-QUALITY RECORDS

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTMEBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
OCT								
25...	1030	39	12.0	30	3.2	--	--	--
NOV								
09...	0700	124	10.0	1510	506	66	87	98
14...	1000	88	11.0	222	53	--	--	--
DEC								
23...	0835	265	5.0	6080	4350	60	74	99
JAN								
07...	0850	142	3.0	326	125	--	--	--
FEB								
21...	1100	106	10.0	20	5.7	--	--	--
MAR								
23...	1000	20	12.0	26	1.4	--	--	--
APR								
19...	1000	20	19.5	33	1.8	--	--	--
MAY								
21...	1915	528	19.5	5000	7130	49	63	88
27...	0725	1000	21.0	2430	6560	43	50	77
29...	0740	1050	23.5	3050	8650	37	48	71
JUN								
04...	0900	366	21.0	10800	10700	66	77	96
13...	1835	1150	24.0	2720	8450	44	52	84
16...	1015	1110	22.5	3080	9230	31	37	51
21...	0705	559	23.5	1570	2370	35	44	63
JUL								
08...	0830	74	27.0	1840	368	55	68	90
30...	0645	452	26.5	3840	4690	47	62	89
AUG								
29...	1915	259	26.0	8980	6280	59	71	96
SEP								
05...	0900	60	24.0	1020	165	71	86	97

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
OCT							
25...	--	--	--	71	--	--	--
NOV							
09...	100	--	--	--	--	--	--
14...	--	--	--	90	91	98	100
DEC							
23...	100	--	--	--	--	--	--
JAN							
07...	--	--	--	99	100	--	--
FEB							
21...	--	--	--	--	--	--	--
MAR							
23...	--	--	--	--	--	--	--
APR							
19...	--	--	--	--	--	--	--
MAY							
21...	--	--	--	99	100	--	--
27...	--	--	--	97	100	--	--
29...	92	99	100	--	--	--	--
JUN							
04...	100	--	--	--	--	--	--
13...	--	--	--	99	100	--	--
16...	85	97	100	--	--	--	--
21...	--	--	--	92	98	100	--
JUL							
08...	--	--	--	99	100	--	--
30...	100	--	--	--	--	--	--
AUG							
29...	100	--	--	--	--	--	--
SEP							
05...	100	--	--	--	--	--	--

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9060	6280	3340	2590	7190	6130	16900	16800	2260	3230	2000	1550
2	10400	6970	3570	4340	7180	6630	17000	10400	2540	2890	2510	1590
3	10300	7230	4650	4840	7060	7050	18200	7100	1580	3140	1940	1830
4	10900	6400	5040	4770	6620	8240	15800	7200	1640	3720	2500	2200
5	9420	6060	5320	3660	6780	7360	16100	5850	2330	4460	2820	2960
6	9680	5200	5580	3940	6770	7660	16500	6520	2530	5160	2630	3620
7	9740	6790	5840	4550	6830	7300	15400	6020	2430	5590	4210	3810
8	8610	5580	6240	5230	6750	7480	14800	6320	2390	4480	5390	4150
9	9800	4760	6860	5740	6570	8050	15300	7250	1960	3820	6340	4180
10	9750	4950	7020	5520	6870	9940	17100	8660	2250	4030	6860	5610
11	9110	4900	7140	5410	6830	10800	19400	9540	1860	4450	7450	6610
12	9340	5480	6900	5120	6820	11800	17000	9900	1800	3680	7900	7740
13	9700	6370	6680	5010	7450	11800	16700	10500	1600	3160	12200	7890
14	9590	6550	7920	5370	7420	12400	18200	15800	1370	3670	13000	10200
15	9850	6740	7680	5470	7470	12500	13900	14800	1360	2720	14000	10200
16	9780	5400	6820	5670	7240	12800	12600	13800	1380	2770	16200	10400
17	9960	3390	7530	5670	7290	12700	12700	12700	1480	4220	16900	10500
18	10200	3590	7320	5160	7840	13400	12500	13300	1580	5450	16300	14700
19	10500	4460	7420	5690	7840	12300	12600	11300	1650	6260	16700	13700
20	10300	4680	7140	6970	7990	10800	12600	10500	1530	8440	17200	11900
21	10700	5020	7120	6280	6790	10800	12400	12500	1450	8800	2500	11400
22	10700	5160	7050	6060	6270	12400	12400	3000	1530	7740	2180	12800
23	10300	5290	2640	5490	6240	13500	13200	3070	1660	7560	2430	14000
24	8360	6220	2150	5320	6190	13600	9640	2710	1670	9480	2660	13500
25	8980	6550	2720	5700	5910	15300	9390	2650	1910	9760	3070	13000
26	9200	6920	2630	6120	6010	16000	10200	2480	2130	10700	2830	11300
27	7280	6630	2900	6400	5680	17500	11900	2340	2440	12800	2430	10900
28	4950	7300	3050	7470	5970	16400	12700	2170	2210	13600	1460	11900
29	4920	6440	3020	7700	---	15000	14000	2120	2340	4260	1520	14800
30	5040	4160	2340	7590	---	15800	16400	1810	2680	2840	1650	11900
31	6290	---	2510	7190	---	17800	---	2010	---	2180	1440	---
MEAN	9120	5720	5290	5550	6850	11700	14500	7780	1920	5650	6430	8690

WTR YR 1979 MEAN 7430 MAX 19400 MIN 1360

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.5	15.5	10.0	5.0	4.0	12.0	13.0	19.0	21.0	25.0	24.5	28.0
2	18.5	19.5	12.5	.5	4.5	13.0	14.0	19.5	20.0	25.0	25.5	28.5
3	19.0	18.5	9.5	1.0	5.0	10.5	19.5	17.5	20.0	29.0	24.0	25.0
4	18.0	15.5	7.5	3.5	5.5	9.0	11.0	15.0	21.0	25.0	25.0	23.5
5	21.5	16.0	10.0	4.0	5.0	15.0	14.5	25.0	23.0	23.0	29.5	24.0
6	17.5	15.0	10.5	4.5	7.5	10.0	18.5	25.0	24.5	26.0	24.0	29.0
7	17.0	13.0	6.5	3.0	4.5	10.0	17.5	23.0	26.0	32.0	27.5	24.0
8	23.5	16.0	3.0	3.5	6.5	15.5	20.0	18.0	24.0	27.0	28.0	29.5
9	25.0	10.0	3.0	3.5	7.0	12.0	16.0	19.5	21.5	31.0	24.5	29.0
10	25.0	15.0	4.5	5.0	6.5	14.0	14.5	16.5	23.5	32.0	29.5	21.5
11	24.5	13.0	2.0	4.0	6.5	7.5	11.5	21.0	20.5	31.5	23.5	23.0
12	23.5	10.0	1.0	4.0	12.5	12.0	18.0	15.0	22.0	29.0	33.0	20.0
13	16.0	11.5	1.5	6.5	15.0	13.0	12.0	24.0	24.0	28.5	31.0	19.5
14	19.0	12.0	8.0	7.0	15.0	12.0	22.5	22.0	25.0	28.0	26.5	19.0
15	16.0	10.5	4.5	6.5	12.5	12.5	18.5	21.5	24.5	25.0	26.5	18.0
16	18.0	10.0	6.0	5.0	7.5	15.0	18.0	21.0	22.5	30.0	23.5	17.5
17	21.5	9.0	6.5	6.5	7.0	12.0	25.0	28.0	24.0	28.0	22.5	16.5
18	22.0	12.5	7.0	11.5	9.5	15.5	25.0	27.5	23.5	29.0	20.0	24.0
19	22.5	12.0	11.0	10.0	9.0	11.5	19.0	22.0	22.5	24.0	22.5	18.0
20	18.0	12.0	9.0	6.5	10.0	15.0	23.5	27.5	25.0	24.5	23.0	20.0
21	20.5	11.5	6.5	9.5	10.5	18.5	18.5	20.0	23.5	24.0	22.5	21.5
22	18.0	12.0	6.0	10.0	11.0	12.0	24.0	21.0	26.0	25.0	25.5	19.5
23	12.0	12.0	5.0	6.0	9.0	18.0	19.5	23.0	27.0	30.0	29.0	19.5
24	11.5	13.5	5.5	5.0	13.0	17.0	24.0	22.0	25.0	32.0	24.5	20.5
25	13.0	14.5	6.0	5.5	14.5	13.5	23.0	23.0	25.0	30.0	25.0	27.0
26	18.0	11.0	5.5	6.5	9.0	15.5	19.0	22.0	25.5	32.5	25.0	27.0
27	12.5	10.5	4.0	9.0	10.0	15.0	19.5	21.0	26.0	33.5	22.5	22.0
28	14.5	10.5	7.0	4.5	14.0	17.5	18.0	25.0	25.0	25.0	21.5	19.0
29	15.0	9.5	7.5	5.0	---	17.0	20.0	23.5	29.0	31.5	26.0	26.0
30	19.0	9.0	7.0	7.0	---	15.0	17.5	24.0	28.0	26.5	24.5	18.5
31	17.0	---	6.0	6.0	---	13.0	---	23.0	---	25.0	25.0	---
MEAN	18.5	12.5	6.5	5.5	9.0	13.5	18.5	22.0	24.0	28.0	25.5	22.5

WTR YR 1979 MEAN 17.0 MAX 33.5 MIN .5

08396500 PECOS RIVER NEAR ARTESIA, NM -- Continued

SUSPENDED SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	51	4.7	131	24	485	211	814	358	45	13	6	1.6
2	63	6.0	129	23	423	162	735	236	38	11	6	1.6
3	65	6.3	97	18	196	68	340	127	36	10	30	6.7
4	68	6.2	185	56	136	43	358	145	24	6.6	15	3.6
5	61	5.3	397	133	132	40	365	155	25	7.2	10	2.5
6	46	3.7	291	80	111	32	360	148	14	3.9	10	2.7
7	39	3.1	97	34	72	21	334	124	14	3.9	12	2.8
8	51	4.7	225	84	70	20	351	123	14	4.2	13	2.3
9	53	4.6	1240	405	62	17	277	98	20	5.8	11	1.8
10	49	4.4	880	261	69	18	211	77	11	3.1	12	1.8
11	47	4.4	820	219	52	12	160	58	10	2.7	13	1.8
12	48	4.3	123	30	138	38	203	72	8	2.1	20	2.6
13	43	3.5	260	62	247	67	242	84	7	1.7	15	1.8
14	38	3.0	209	50	99	25	181	62	14	3.3	16	1.6
15	44	3.4	240	76	106	29	128	43	9	2.0	13	1.3
16	50	3.8	459	212	83	22	114	38	7	1.7	13	1.2
17	51	3.7	867	400	47	11	154	52	6	1.4	10	.86
18	50	3.5	568	250	51	13	147	52	7	1.6	10	.86
19	43	3.0	272	110	68	18	134	45	6	1.3	10	1.1
20	45	2.9	219	82	64	16	95	28	8	2.0	8	.73
21	46	2.9	184	64	45	12	89	30	12	3.6	9	.80
22	60	4.1	178	58	1510	1150	110	41	6	1.8	15	.97
23	57	5.7	148	44	5370	3710	109	40	6	1.9	28	1.7
24	40	5.0	152	42	2830	1860	120	41	7	2.2	21	.96
25	33	4.1	128	34	1080	639	89	29	8	2.4	18	.83
26	59	14	113	29	745	439	84	30	7	2.2	22	1.0
27	88	26	97	23	395	218	87	32	9	2.8	23	1.3
28	73	20	95	25	443	264	58	20	7	2.1	28	1.2
29	72	16	153	67	735	556	53	18	---	---	20	.76
30	87	17	427	203	1210	938	63	21	---	---	24	1.0
31	84	16	---	---	972	614	53	17	---	---	21	.85
TOTAL	---	215.3	---	3198	---	11283	---	2444	---	107.5	---	52.62

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	23	.87	44	4.3	1310	990	1290	313	1660	654	7960	3700
2	24	1.1	40	6.6	4330	11100	2270	515	2010	1120	7590	2030
3	30	1.6	27	3.4	8500	16400	1350	190	2250	1080	5860	2100
4	28	1.3	26	3.6	10000	9290	718	85	1210	386	1560	379
5	26	1.5	30	8.0	5290	3610	1840	184	1400	544	970	157
6	30	1.7	28	5.7	2700	1900	525	48	1080	286	705	91
7	35	1.6	26	4.1	4260	5160	349	30	650	114	775	117
8	31	.92	25	2.6	8800	5370	1880	863	310	38	651	76
9	26	.84	25	1.3	13700	7800	2130	1100	170	14	802	84
10	48	1.7	23	.47	13300	22000	1420	380	130	5.6	2560	270
11	25	.81	27	.42	7460	15000	1770	306	83	2.0	142	12
12	34	1.0	28	.73	5940	15300	9010	1440	99	2.1	132	9.6
13	20	.70	28	.76	3310	10000	3650	1850	114	2.2	61	4.1
14	27	2.0	37	1.7	3060	9500	2920	1140	96	1.7	358	22
15	36	3.2	52	2.4	3010	9510	1810	538	84	1.2	239	14
16	21	1.6	37	1.7	2980	8530	1350	299	76	1.2	103	5.6
17	19	1.3	63	4.6	1950	3370	638	93	72	.95	67	3.3
18	20	1.0	45	4.5	1660	2190	288	33	70	.83	93	4.0
19	30	1.6	52	5.8	2710	4810	159	17	69	.73	62	2.3
20	31	1.5	28	2.9	2250	3760	279	29	1130	1270	60	2.1
21	27	1.3	1420	1990	1510	2090	117	9.2	8340	10300	62	2.2
22	27	1.0	3740	7020	1120	1210	69	4.5	5270	2360	80	3.7
23	35	2.6	3350	7140	945	855	99	4.5	2060	478	44	2.0
24	33	2.6	2950	5880	1080	709	2150	87	830	117	52	2.4
25	25	.95	2830	5880	660	369	83	2.2	582	64	85	4.8
26	27	.73	2700	6180	1090	1040	88	2.2	880	302	63	2.0
27	32	.67	3220	8590	1030	662	60	1.5	2140	1540	54	1.6
28	33	.49	3650	9560	1630	1030	939	208	4540	8850	46	1.5
29	37	.75	3080	8730	1380	633	1550	515	11000	11100	53	2.1
30	45	1.7	3150	7810	928	276	3410	3310	7240	7290	167	10
31	---	---	2020	3590	---	---	3500	1290	6150	4100	---	---
TOTAL	---	40.63	---	72435.58	---	174464	---	14887.1	---	52025.51	---	9115.3

TOTAL LOAD FOR YEAR: 340268.54 TONS.

08398500 RIO PEÑASCO AT DAYTON, NM

LOCATION.--Lat 32°44'36", long 104°24'49", in NE¼SE¼SE¼ sec.18, T.18 S., R.26 E., Eddy County, Hydrologic Unit 13060010, on left bank 1.2 mi (1.9 km) upstream from U.S. Highway 285, 1.9 mi (3.1 km) northwest of old Dayton railway station, 5.6 mi (9.0 km) upstream from mouth, and 7.0 mi (11.3 km) south of Artesia. Mouth at Pecos River mile 496.4 (798.7 km).

DRAINAGE AREA.--1,060 mi² (2,750 km²), approximately.

PERIOD OF RECORD.--April 1951 to current year. Prior to October 1953, published as "near Dayton."

REVISED RECORDS.--WSP 1242: 1951(M). WSP 1512: 1956. WSP 1923: 1955.

GAGE.--Water-stage recorder and rock and concrete control. Datum of gage is 3,385.19 ft (1,031.806 m) National Geodetic Vertical Datum of 1929. Prior to May 9, 1968, at site 2.4 mi (3.9 km) downstream, at datum 44.30 ft (13.503 m) lower. May 9, 1968, to June 12, 1975, at present site at datum 1.98 ft (0.604 m) higher.

REMARKS.--Records fair. Diversions and ground-water withdrawals for irrigation of about 3,000 acres (12 km²), 1959 determination, above station.

AVERAGE DISCHARGE.--28 years, 5.55 ft³/s (0.157 m³/s), 4,020 acre-ft/yr (4.96 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,800 ft³/s (844 m³/s) Aug. 23, 1966, gage height, 16.4 ft (5.00 m), from floodmarks, present site and datum, from rating curve extended above 6,000 ft³/s (170 m³/s), on basis of slope-area measurements at gage heights 6.82 ft (2.079 m) and 7.90 ft (2.408 m) at previous site and datum; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of about Sept. 22, 1941, reached a stage of about 9 ft (2.7 m) previous site and datum (from old logs), and peak discharge for station "near Dunken", at river mile 66.8 (107 km), was 70,000 ft³/s (1,980 m³/s), as determined for that station in 1956, from floodmarks and rating curve extended above 36,300 ft³/s (1,030 m³/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge 1,180 ft³/s (33.4 m³/s) at 0800 hours May 26, gage height, 4.88 ft (1.487 m) no other peak above base of 750 ft³/s (21 m³/s); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.09	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	333	.00	.00	7.5	.00
27	.00	.00	.00	.00	.00	.00	.00	1.9	.00	.00	.21	.00
28	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.11	.00	.00	.00	.00	.00	334.95	.00	.00	7.71	.00
MEAN	.000	.004	.000	.000	.000	.000	.000	10.8	.000	.000	.25	.000
MAX	.00	.09	.00	.00	.00	.00	.00	333	.00	.00	7.5	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.2	.00	.00	.00	.00	.00	664	.00	.00	15	.00

CAL YR 1978 TOTAL 247.43 MEAN .68 MAX 192 MIN .00 AC-FT 491
WTR YR 1979 TOTAL 342.77 MEAN .94 MAX 333 MIN .00 AC-FT 680

08399500 PECOS RIVER (KAISER CHANNEL) NEAR LAKEWOOD, NM

LOCATION.--Lat 32°41'22", long 104°17'53", in NW¼SE¼ sec.5, T.19 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on left bank 3.0 mi (4.8 km) upstream from high-water line of Lake McMillan, 6.0 mi (9.7 km) northeast of Lakewood, 7.0 mi (11.3 km) northeast of gates in McMillan Dam, 12 mi (19.3 km) southeast of Artesia, and at mile 492.1 (791.8 km).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1950 to current year. Prior to October 1954, published as Kaiser Lake-McMillan Channel near Lakewood.

GAGE.--Water-stage recorder. Datum of gage is 3,268.53 ft (996.248 m) National Geodetic Vertical Survey of 1929 (Bureau of Reclamation bench mark). Prior to Mar. 23, 1955, at site 3.0 mi (4.8 km) downstream at datum 7.83 ft (2.387 m) lower. Mar. 23, 1955, to Sept. 30, 1963, at present site at datum 2.00 ft (0.610 m) higher.

REMARKS.--Water-discharge records poor. Flow partly regulated by Lake Sumner (station 08384000). Diversions and ground-water withdrawals for irrigation of about 170,000 acres (690 km²), 1959 determination, above station. Above about 1,500 ft³/s (42 m³/s) flow will begin bypassing station and, depending on the magnitude and duration of flow, may reach Lake McMillan (station 08400500). Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,920 ft³/s (82.7 m³/s) July 12, 1960; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 1,170 ft³/s (34.0 m³/s) June 14; minimum, 9.0 ft³/s (0.25 m³/s) Sept. 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	32	68	150	217	104	92	17	28	311	86	136	249
2	33	62	140	125	100	86	17	43	508	81	188	161
3	34	63	130	130	98	71	17	42	961	58	191	163
4	34	113	118	144	93	74	19	40	329	49	120	184
5	33	130	112	165	95	71	16	59	264	43	131	120
6	32	110	106	154	95	77	19	64	262	38	108	90
7	30	100	105	147	94	68	20	52	430	33	78	60
8	33	125	105	136	97	57	17	42	297	71	66	56
9	32	110	89	135	101	52	14	32	208	176	54	42
10	32	80	97	136	98	49	16	22	543	89	40	35
11	33	75	98	135	93	46	16	14	761	61	33	30
12	33	80	100	135	90	43	16	14	793	61	29	26
13	31	80	100	130	88	43	15	17	1140	115	28	24
14	29	80	92	129	84	39	19	17	1170	123	27	22
15	29	100	97	125	82	36	31	23	1120	90	28	20
16	29	150	97	122	83	34	27	23	1020	59	29	18
17	29	160	90	121	85	31	27	29	539	47	30	16
18	27	150	89	124	81	30	24	32	456	40	28	14
19	27	140	92	120	83	29	23	36	563	32	26	12
20	27	130	90	107	92	31	22	37	612	46	26	10
21	27	120	89	115	98	30	22	139	566	40	336	9.0
22	27	110	131	125	100	28	21	609	426	33	230	10
23	32	100	230	125	104	24	23	778	384	30	137	12
24	40	90	230	122	106	20	30	722	297	29	101	12
25	36	90	220	116	104	18	25	752	179	26	86	12
26	70	85	243	117	104	18	19	865	230	23	131	16
27	97	80	233	124	110	18	18	990	226	22	255	12
28	99	90	235	121	102	20	16	975	215	21	525	11
29	80	150	250	116	---	18	14	1070	132	74	478	11
30	73	165	316	113	---	16	17	913	84	335	401	15
31	68	---	288	111	---	16	---	684	---	176	380	---
TOTAL	1268	3186	4562	4042	2664	1285	597	9163	15026	2207	4456	1472.0
MEAN	40.9	106	147	130	95.1	41.5	19.9	296	501	71.2	144	49.1
MAX	99	165	316	217	110	92	31	1070	1170	335	525	249
MIN	27	62	89	107	81	16	14	14	84	21	26	9.0
AC-FT	2520	6320	9050	8020	5280	2550	1180	18170	29800	4380	8840	2920

CAL YR 1978 TOTAL 47870.50 MEAN 131 MAX 1530 MIN .00 AC-FT 94950
WTR YR 1979 TOTAL 49928.00 MEAN 137 MAX 1170 MIN 9.0 AC-FT 99030

08399500 PECOS RIVER (KAISER CHANNEL) NEAR LAKEWOOD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961, 1966, 1968, 1970, 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS)	PH (UNITS)	TEMPER-ATURE (DEG C)	HARD-NESS (MG/L AS CACO3)	HARD-NESS, NONCAR-BONATE (MG/L CACO3)	CALCIUM DIS-SOLVED (MG/L AS CA)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG)	SODIUM, DIS-SOLVED (MG/L AS NA)	SODIUM AD-SORP-TION RATIO
JAN 18...	--	124	4220	8.1	9.0	1600	1400	390	140	590	6.5
MAR 20...	1100	31	5800	8.3	14.0	2800	2700	650	290	1900	16
MAY 02...	1030	40	9230	8.1	18.0	3000	2900	650	320	2400	19

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
JAN 18...	6.8	220	0	180	1200	1100	.8	14	1920	3560
MAR 20...	16	150	0	120	2300	3300	.9	5.8	9080	8550
MAY 02...	21	100	0	82	2200	3600	.8	.2	10500	9250

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
JAN 18...	--	40	6100
MAR 20...	1100	100	12000
MAY 02...	1030	100	13000

08400000 FOURMILE DRAW NEAR LAKEWOOD, NM

LOCATION.--Lat 32°40'20", long 104°22'07", in SW¼NW¼SE¼ sec.10, T.19 S., R.26 E., Eddy County, Hydrologic Unit 13060011, in left side of channel 360 ft (110 m) downstream from ford on Lakewood-Dayton road, 1.9 mi (3.1 km) downstream from U.S. Highway 285, 2.8 mi (4.5 km) north of Lakewood, 3.8 mi (6.1 km) upstream from mouth, and 11.5 mi (18.5 km) south of Artesia. Mouth at Pecos River mile 490.6 (789.4 km).

DRAINAGE AREA.--265 mi² (686 km²), approximately.

PERIOD OF RECORD.--October 1951 to current year.

REVISED RECORDS.--WRD 1968: 1967.

GAGE.--Water-stage recorder. Datum of gage is 3,299.14 ft (1,005.578 m) National Geodetic Vertical Datum of 1929. Oct. 1, 1951, to June 19, 1962, at site 1.8 mi (2.9 km) upstream at datum 30.61 ft (9.330 m) higher. June 19, 1962, to Oct. 12, 1966, at site 410 ft (125 m) upstream at datum 6.08 ft (1.853 m) higher.

REMARKS.--Records good. No surface diversions above station.

AVERAGE DISCHARGE.--28 years, 3.91 ft³/s (0.111 m³/s) 2,830 acre-ft/yr (3.49 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,300 ft³/s (830 m³/s) Aug. 23, 1966, gage height, 19.9 ft (6.07 m), from floodmarks present datum, from rating curve extended above 5,000 ft³/s (17.0 m³/s) on basis of slope-area measurement of peak flow; no flow most of time.

The flood of Aug. 23, 1966, (information from local resident) is believed to be the greatest since at least 1920.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,820 ft³/s (108 m³/s) at 1000 hours May 26, gage height, 10.65 ft. (3.246 m), no other peak above base of 200 ft³/s (5.7 m³/s); no flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	998	.00	.00	52	.00
27	.00	.00	.00	.00	.00	.00	.00	87	.00	.00	58	.00
28	.00	.00	.00	.00	.00	.00	.00	5.9	.00	.00	13	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.31	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	.00	.00	.00	.00	1090.90	.00	.00	123.31	.00
MEAN	.000	.000	.000	.000	.000	.000	.000	35.2	.000	.000	3.98	.000
MAX	.00	.00	.00	.00	.00	.00	.00	998	.00	.00	58	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	.00	.00	.00	.00	2160	.00	.00	245	.00

CAL YR 1978 TOTAL 1124.84 MEAN 3.08 MAX 981 MIN .00 AC-FT 2230
WTR YR 1979 TOTAL 1214.21 MEAN 3.33 MAX 998 MIN .00 AC-FT 2410

08400500 LAKE MCMILLAN NEAR LAKEWOOD, NM

LOCATION.--Lat 32°35'42", long 104°20'49", in NE¼NE¼ sec.11, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, near outlet gates of McMillan Dam on Pecos River, 3.4 mi (5.5 km) southeast of Lakewood, and at mile 484.3 (779.2 km).

DRAINAGE AREA.--16,990 mi² (44,000 km²), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1939 to September 1965 (monthend gage heights and contents), October 1965 to current year. Monthend gage heights January 1918 to December 1938 in files of Pecos River Commission.

GAGE.--Nonrecording gage. Datum of gage is 3,241.6 ft (988.04 m) Bureau of Reclamation datum.

REMARKS.--Lake is formed by McMillan Dam, an earthfill structure, completed and storage began in 1893. The structure was damaged by floods of October 1893 and Oct. 2, 1904. Capacity, (based on Aug. 1964 survey) 27,300 acre-ft (33.7 hm³) between gage heights 0.0 ft (sill of outlet gate) and 24.9 ft (7.59 m), crest of spillway 2. Flashboards in spillway No. 2 may be used to increase this capacity. Maximum capacity without spill, 33,620 acre-ft (41.5 hm³) at gage height 26.1 ft (7.96 m) crest of spillway 1. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents. Gage heights may be affected by variable drawdown due to flow through gates. Water is used for irrigation by Carlsbad Irrigation District.

COOPERATION.--Gage-height record and capacity table furnished by Carlsbad Irrigation District.

EXTREMES FOR PERIOD OF RECORD (SINCE 1938).--Maximum contents observed, 68,500 acre-ft (84.5 hm³) Sept.26, 1941, gage height, 29.95 ft (9.129 m); no storage for periods in 1944-54, 1957, 1964, 1965, 1974, 1976, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 32,250 acre-ft (39.8 hm³) June 22, gage height, 25.85 ft (7.879 m); minimum, 3,910 acre-ft (4.82 hm³) Oct. 16-22, gage height 17.80 ft (5.425 m).

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4120	4970	10460	16930	21620	23670	21620	8460	19690	29340	21620	17310
2	4120	5080	10600	17310	21620	23670	21400	8200	20530	28820	21620	17310
3	4120	5190	10740	17310	21840	23670	21400	7960	21400	28560	21620	17120
4	4120	5410	11020	17310	21840	23670	21180	7720	22980	28050	21400	16930
5	4120	5960	11160	17880	21840	23670	21180	7480	23440	27800	21180	16560
6	4120	6200	11310	18080	22060	23670	20960	7240	23670	27550	20740	16380
7	4020	6310	11460	18280	22290	23670	20960	7000	23900	27300	20320	16020
8	4020	6310	11760	18480	22520	23900	20740	6770	24620	26800	20110	15660
9	4020	6540	11760	18680	22520	23900	20740	6540	24860	26550	19690	15130
10	4020	6770	11760	18680	22520	23900	19690	6540	25100	26800	19080	14790
11	4020	6880	11760	18880	22520	23670	18280	6540	26300	26300	18280	14110
12	4020	7000	11760	19080	22750	23670	17310	6540	27550	26060	17310	13460
13	4020	7120	12060	19280	22750	23670	16930	6310	29080	25820	16560	12820
14	4020	7240	12210	19480	22750	23670	16560	6310	30380	24860	16020	12060
15	4020	7360	12360	19480	22750	23670	16200	6080	31440	24620	15300	11760
16	3910	7480	12510	19690	22750	23440	15840	5630	31710	24620	14620	11310
17	3910	7720	12510	19900	22980	23440	15480	5410	31980	23440	14110	11020
18	3910	7960	12660	20110	22980	23210	14960	5300	31170	22750	13940	10880
19	3910	8200	12660	20110	23210	22980	14450	4970	31170	22520	13780	10740
20	3910	8460	12820	20110	23210	22980	13460	4640	31710	22520	13620	10600
21	3910	8850	12820	20320	23210	22980	12660	4330	31980	22520	13460	10320
22	3910	8980	12980	20320	23210	22750	11910	4540	32250	22520	13940	10180
23	4020	9240	13300	20530	23440	22750	11310	5630	31980	22290	14110	10040
24	4120	9500	13620	20530	23440	22750	10740	7120	31980	22290	14110	9760
25	4220	9500	13940	20740	23440	22520	10320	7960	31440	22060	14110	9370
26	4220	9630	14280	20740	23440	22520	9900	9110	30900	21840	13780	8980
27	4220	9760	14620	20960	23670	22290	9500	11310	30640	21840	13940	8590
28	4330	9900	14960	21180	23670	22290	9240	13620	30380	21620	14280	8330
29	4540	10040	15480	21400	---	22060	8850	15660	30120	21400	15480	7960
30	4750	10180	16020	21620	---	22060	8590	17880	29600	21400	16380	7600
31	4750	---	16560	21620	---	21840	---	19080	---	21400	17310	---
MAX	4750	10180	16560	21620	23670	23900	21620	19080	32250	29340	21620	17310
MIN	3910	4970	10460	16930	21620	21840	8590	4330	19690	21400	13460	7600
(≠)	+630	+5430	+6380	+5060	+2050	-1830	-13250	+10490	+10520	-8200	-4090	-9710

Cal yr 1978 Max 26550 Min 456 † +9320
Wtr yr 1979 Max 32250 Min 3910 † +3480

(≠) Change in contents, in acre-feet

08400500 LAKE MCMILLAN NEAR LAKEWOOD, NM -- CONTINUED

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	17.90	18.30	20.55	22.55	23.70	24.15	23.70	19.80	23.25	25.30	23.70	22.65
2	17.90	18.35	20.60	22.65	23.70	24.15	23.65	19.70	23.45	25.20	23.70	22.65
3	17.90	18.40	20.65	22.65	23.75	24.15	23.65	19.60	23.65	25.15	23.70	22.60
4	17.90	18.50	20.75	22.65	23.75	24.15	23.60	19.50	24.00	25.05	23.65	22.55
5	17.90	18.75	20.80	22.80	23.75	24.15	23.60	19.40	24.10	25.00	23.60	22.45
6	17.90	18.85	20.85	22.85	23.80	24.15	23.55	19.30	24.15	24.95	23.50	22.40
7	17.85	18.90	20.90	22.90	23.85	24.15	23.55	19.20	24.20	24.90	23.40	22.30
8	17.85	18.90	21.00	22.95	23.90	24.20	23.50	19.10	24.35	24.80	23.35	22.20
9	17.85	19.00	21.00	23.00	23.90	24.20	23.50	19.00	24.40	24.75	23.25	22.05
10	17.85	19.10	21.00	23.00	23.90	24.20	23.25	19.00	24.45	24.80	23.10	21.95
11	17.85	19.15	21.00	23.05	23.90	24.15	22.90	19.00	24.70	24.70	22.90	21.75
12	17.85	19.20	21.00	23.10	23.95	24.15	22.65	19.00	24.95	24.65	22.65	21.55
13	17.85	19.25	21.10	23.15	23.95	24.15	22.55	18.90	25.25	24.60	22.45	21.35
14	17.85	19.30	21.15	23.20	23.95	24.15	22.45	18.90	25.50	24.40	22.30	21.10
15	17.85	19.35	21.20	23.20	23.95	24.15	22.35	18.80	25.70	24.35	22.10	21.00
16	17.80	19.40	21.25	23.25	23.95	24.10	22.25	18.60	25.75	24.35	21.90	20.85
17	17.80	19.50	21.25	23.30	24.00	24.10	22.15	18.50	25.80	24.10	21.75	20.75
18	17.80	19.60	21.30	23.35	24.00	24.05	22.00	18.45	25.65	23.95	21.70	20.70
19	17.80	19.70	21.30	23.35	24.05	24.00	21.85	18.30	25.65	23.90	21.65	20.65
20	17.80	19.80	21.35	23.35	24.05	24.00	21.55	18.15	25.75	23.90	21.60	20.60
21	17.80	19.95	21.35	23.40	24.05	24.00	21.30	18.00	25.80	23.90	21.55	20.50
22	17.80	20.00	21.40	23.40	24.05	23.95	21.05	18.10	25.85	23.90	21.70	20.45
23	17.85	20.10	21.50	23.45	24.10	23.95	20.85	18.60	25.80	23.85	21.75	20.40
24	17.90	20.20	21.60	23.45	24.10	23.95	20.65	19.25	25.80	23.85	21.75	20.30
25	17.95	20.20	21.70	23.50	24.10	23.90	20.50	19.60	25.70	23.80	21.75	20.15
26	17.95	20.25	21.80	23.50	24.10	23.90	20.35	20.05	25.60	23.75	21.65	20.00
27	17.95	20.30	21.90	23.55	24.15	23.85	20.20	20.85	25.55	23.75	21.70	19.85
28	18.00	20.35	22.00	23.60	24.15	23.85	20.10	21.60	25.50	23.70	21.80	19.75
29	18.10	20.40	22.15	23.65	---	23.80	19.95	22.20	25.45	23.65	22.15	19.60
30	18.20	20.45	22.30	23.70	---	23.80	19.85	22.80	25.35	23.65	22.40	19.45
31	18.20	---	22.45	23.70	---	23.75	---	23.10	---	23.65	22.65	---
MEAN	17.90	19.45	21.30	23.20	23.95	24.04	22.10	19.50	25.04	24.33	22.48	21.15
MAX	18.20	20.45	22.45	23.70	24.15	24.20	23.70	23.10	25.85	25.30	23.70	22.65
MIN	17.80	18.30	20.55	22.55	23.70	23.75	19.85	18.00	23.25	23.65	21.55	19.45

WTR YR 1979 MEAN 22.02 MAX 25.85 MIN 17.80

08400500 LAKE MCMILLAN NEAR LAKEWOOD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960-67, 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)
JAN										
23...	1000	--	8.2	10.5	1300	1200	340	120	550	6.4
23...	1001	--	8.1	10.5	1300	1200	320	120	560	6.8
MAR										
23...	1030	5400	8.2	14.2	1600	1500	400	140	760	8.0
23...	1031	5000	8.1	14.0	1600	1500	390	140	830	9.2
MAY										
01...	1130	5780	8.2	20.0	1900	1800	460	180	920	9.2
01...	1131	5800	8.1	19.5	1900	1800	460	180	910	9.1

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
JAN										
23...	8.7	130	0	110	990	940	.6	7.5	3470	3030
23...	7.0	150	0	120	1000	1000	.7	7.5	3490	3090
MAR										
23...	7.8	130	0	110	1700	1100	.7	5.6	4170	4180
23...	7.9	130	0	110	1300	1400	.7	5.5	4130	4140
MAY										
01...	9.8	130	0	110	1500	1700	.7	7.1	5210	4850
01...	10	130	0	110	1500	1700	.8	7.2	5180	4840

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	LITHIUM DISSOLVED (UG/L AS LI) (01130)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)
JAN			
23...	1000	30	4900
23...	1001	30	5000
MAR			
23...	1030	40	6500
23...	1031	40	6500
MAY			
01...	1130	50	7600
01...	1131	50	8000

08401000 PECOS RIVER BELOW MCMILLAN DAM, NM

LOCATION.--Lat 32°35'40", long 104°20'59", in NW¼NE¼ sec.11, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on left bank 700 ft (210 m) downstream from gates in McMillan Dam, 3.4 mi (5.5 km) southeast of Lakewood, and at mile 484.1 (778.9 km).

DRAINAGE AREA.--16,990 mi² (44,000 km²), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1906 to March 1908, January 1909 to December 1911, August 1939 to December 1940, December 1946 to current year (January 1906, and January 1910 to December 1911, gage heights and discharge measurements only). Published as "near Lakewood" 1906-11, and as "below McMillan Dam, near Lakewood" 1939-40.

REVISED RECORDS.--WSP 1512: 1909.

GAGE.--Water-stage recorder and rock control. Datum of gage is 3,238.21 ft (987.006 m) National Geodetic Vertical Datum of 1929. See WSP 1732 for history of changes prior to Mar. 12, 1957. Supplemental water-stage recorders on McMillan Dam spillways, No. 1 and 2, Apr. 6, 1960, to Sept. 30, 1970.

REMARKS.--Water-discharge records good. Flow regulated by Lake Sumner and Lake McMillan (stations 08384000, 08400500). Diversions and ground-water withdrawals for irrigation of about 171,000 acres (690 km²), 1959 determination, above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--34 years (1907, 1940, 1948-79), 97.9 ft³/s (2.773 m³/s), 70,930 acre-ft/yr (87.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,500 ft³/s (467 m³/s) Aug. 23, 1966, includes flow of spillways; no flow for many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1904, may have reached 60,000 ft³/s (1,700 m³/s). The flood of Aug. 3, 1893, damaged McMillan Dam, then under construction, and destroyed Avalon Dam; this flood was described as "highest in 50 years" at Carlsbad (corrected).

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge 752 ft³/s (21.3 m³/s) June 16,17, gage height, 4.71 ft (1.436 m); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.27	.44	.05	.00	.00	.05	.02	100	.94	173	99	158
2	.31	.44	.04	.00	.00	.03	.02	101	.27	175	168	158
3	.37	.44	.02	.00	.00	.00	.02	101	.22	150	166	158
4	.44	.95	.02	.00	.00	.00	.02	100	.18	80	166	154
5	.52	.52	.01	.00	.00	.00	.02	98	.18	80	164	154
6	.61	.52	.00	.00	.00	.00	.02	97	.18	80	164	154
7	.61	.52	.00	.00	.00	.00	.02	97	.18	80	164	154
8	.61	.52	.00	.00	.00	.00	.02	98	.22	82	164	154
9	.61	.31	.00	.00	.00	.00	276	49	.12	85	191	154
10	.52	.27	.00	.00	.00	.00	408	.31	.12	86	294	223
11	.52	.31	.00	.00	.00	.00	394	.27	.12	86	294	266
12	.52	.27	.00	.00	.00	.00	227	.27	.12	88	291	260
13	.44	.18	.00	.00	.00	.00	111	.27	90	282	291	260
14	.37	.18	.00	.00	.00	.00	109	45	432	314	291	198
15	.37	.15	.00	.00	.00	.01	114	166	553	279	291	154
16	.37	.12	.00	.00	.00	.09	114	199	752	279	210	154
17	.37	.05	.00	.00	.00	.12	186	134	752	241	139	110
18	.37	.00	.00	.00	.00	.12	292	97	430	179	78	74
19	.37	.00	.00	.00	.00	.12	332	105	215	81	76	72
20	.31	.00	.00	.00	.01	.12	326	141	215	1.1	78	72
21	.31	.00	.00	.00	.05	.11	326	126	250	1.4	79	72
22	.31	.00	.00	.00	.05	.10	266	32	271	1.7	78	71
23	.27	.00	.00	.00	.05	.09	213	.82	271	2.4	76	86
24	.09	.00	.00	.00	.05	.08	213	103	271	2.6	75	150
25	.04	.00	.00	.00	.02	.07	210	233	271	2.4	135	150
26	.07	.00	.00	.00	.01	.06	143	82	271	1.9	163	150
27	.09	.00	.00	.00	.02	.05	101	.71	271	1.7	6.5	149
28	.12	.00	.00	.02	.04	.04	101	.61	202	1.9	6.5	149
29	.12	.07	.00	.02	---	.03	100	.44	173	1.7	5.0	149
30	.15	.05	.00	.01	---	.02	100	133	173	1.7	2.2	130
31	.27	---	.00	.00	---	.01	---	377	---	1.7	74	---
TOTAL	10.72	6.31	.14	.05	.30	1.32	4662.16	2817.70	5865.85	2922.2	4479.2	4497
MEAN	.35	.21	.005	.002	.011	.043	155	90.9	196	94.3	144	150
MAX	.61	.95	.05	.02	.05	.12	408	377	752	314	294	266
MIN	.04	.00	.00	.00	.00	.00	.02	.27	.12	1.1	2.2	71
AC-FT	21	13	.3	.10	.6	2.6	9250	5590	11630	5800	8880	8920

CAL YR 1978 TOTAL 27101.12 MEAN 74.2 MAX 469 MIN .00 AC-FT 53760
WTR YR 1979 TOTAL 25262.95 MEAN 69.2 MAX 752 MIN .00 AC-FT 50110

08401000 PECOS RIVER BELOW MCMILLAN DAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1962-66, 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)
APR											
25...	1000	210	8500	7.9	19.0	2000	1900	470	190	970	12

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
APR										
25...	10	130	0	110	1600	1600	.8	7.3	5290	4920

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	LITHIUM DISSOLVED (UG/L AS LI) (01130)	STRONTIUM, DISSOLVED (UG/L AS SR) (01080)
APR			
25...	1000	60	4200

08401100 PECOS RIVER ABOVE SEVEN RIVERS, NEAR LAKEWOOD, NM

LOCATION.--Lat 32°34'42", long 104°22'42", in NE¼NE¼NE¼ sec.16. T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank, 0.5 mi (0.80 km) upstream from mouth of Seven Rivers, 2.6 mi (4.2 km) downstream from Lake McMillan, and 3.6 mi (5.8 km) south of Lakewood, and at mile 481.4 (774.6 km).

DRAINAGE AREA.--17,000 mi² (44,030 km²), approximately (contributing area).

PERIOD OF RECORD.--May 1974 to current year. (Operated as a low-flow station only).

GAGE.--Water-stage recorder. Datum of gage is 3,213.52 ft (979.481 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Records fair. Flow regulated by Lake Sumner and Lake McMillan (stations 08384000, 08400500). Diversions and ground-water withdrawals for irrigation of about 171,000 acres (690 km²), 1959 determination, above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined; no flow at times each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge not determined; no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	101	17	174	67	150
2	.00	.00	.00	.00	.00	.00	.00	101	.01	174	150	150
3	.00	.00	.00	.00	.00	.00	.00	104	.00	147	154	150
4	.00	.00	.00	.00	.00	.00	.00	104	.00	72	154	150
5	.00	25	.00	.00	.00	.00	.00	106	.00	72	158	150
6	.00	5.0	.00	.00	.00	.00	.00	106	.00	72	162	150
7	.00	2.0	.00	.00	.00	.00	.00	106	.00	69	162	154
8	.00	1.0	.00	.00	.00	.00	.00	106	.00	69	162	154
9	.00	.50	.00	.00	.00	.00	234	61	.00	69	178	158
10	.00	.00	.00	.00	.00	.00	414	1.0	.00	69	277	223
11	.00	.00	.00	.00	.00	.00	421	.00	.00	69	277	277
12	.00	.00	.00	.00	.00	.00	252	.00	.00	72	272	277
13	.00	.00	.00	.00	.00	.00	104	.00	68	256	266	282
14	.00	.00	.00	.00	.00	.00	104	32	427	301	266	208
15	.00	.00	.00	.00	.00	.00	98	170	563	256	266	162
16	.00	.00	.00	.00	.00	.00	95	209	815	256	199	162
17	.00	.00	.00	.00	.00	.00	155	147	824	224	129	112
18	.00	.00	.00	.00	.00	.00	265	101	464	154	62	72
19	.00	.00	.00	.00	.00	.00	314	101	218	90	58	72
20	.00	.00	.00	.00	.00	.00	331	143	218	.40	58	72
21	.00	.00	.00	.00	.00	.00	331	135	239	.00	60	72
22	.00	.00	.00	.00	.00	.00	281	41	277	.00	58	69
23	.00	.00	.00	.00	.00	.00	218	.21	272	.00	56	86
24	.00	.00	.00	.00	.00	.00	213	86	272	.00	56	158
25	.00	.00	.00	.00	.00	.00	213	234	272	.00	111	154
26	.00	.00	.00	.00	.00	.00	146	93	266	.00	162	150
27	.00	.00	.00	.00	.00	.00	109	1.6	266	.00	4.0	150
28	.00	.00	.00	.00	.00	.00	106	.00	207	.00	1.2	154
29	.00	.00	.00	.00	---	.00	106	.00	170	.00	.99	154
30	.00	.00	.00	.00	---	.00	104	117	170	.00	.17	129
31	.00	---	.00	.00	---	.00	---	377	---	.00	54	---
TOTAL	.00	33.50	.00	.00	.00	.00	4614.00	2883.81	6025.01	2665.40	4040.36	4561
MEAN	.000	1.12	.000	.000	.000	.000	154	93.0	201	86.0	130	152
MAX	.00	25	.00	.00	.00	.00	421	377	824	301	277	282
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.17	69
AC-FT	.00	66	.00	.00	.00	.00	9150	5720	11950	5290	8010	9050

WTR YR 1979 TOTAL 24823.08 MEAN 68.0 MAX 824 MIN .00 AC-FT 49240

08401200 SOUTH SEVEN RIVERS NEAR LAKEWOOD, NM

LOCATION.--Lat 32°35'19", long 104°25'17", in SE¼SE¼NW¼ sec.7, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on downstream side of center pier of bridge on U.S. Highway 285, 0.4 mi (0.6 km) south of Seven Rivers, 2.6 mi (4.2 km) upstream from mouth, and 4.0 mi (6.4 km) southwest of Lakewood. Mouth at Pecos River mile 480.9 (773.8 km).

DRAINAGE AREA.--220 mi² (570 km²), approximately.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,276 ft (999 m), from topographic map. Prior to July 8, 1965, at site 400 ft (120 m) upstream at datum 0.57 ft (0.174 m) higher.

REMARKS.--Records good. No surface diversions above station, ground-water withdrawals for 240 acres (97.1 hm²), above station.

AVERAGE DISCHARGE.--16 years, 4.91 ft³/s (0.139 m³/s), 3,560 acre-ft/yr (4.39 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 25,500 ft³/s (722 m³/s) May 30, 1965, gage height, 20.0 ft (6.10 m), from floodmarks, present site and datum, from rating curve extended above 5,700 ft³/s (161 m³/s) on basis of slope-area measurements at gage heights 18.15 ft (5.532 m) and 20.0 ft (6.10 m); no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge since at least 1941, about 30,000 ft³/s (850 m³/s) gage height, 22.8 ft (6.95 m), from old debris on left bank former site and datum, from rating curve extended above 5,700 ft³/s (161 m³/s) on basis of slope-area measurement at gage height 21.8 ft (6.64 m). Probable date of flood, Oct. 7, 1954.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15 ft³/s (0.425 m³/s) at 2100 hours Oct. 22, gage height, 5.18 ft (1.579 m) no other peak above base of 450 ft³/s (13 m³/s); no flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.96	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	1.06	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MEAN	.034	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
MAX	.96	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	2.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

CAL YR 1978 TOTAL 2762.91 MEAN 7.57 MAX 1810 MIN .00 AC-FT 5480
WTR YR 1979 TOTAL 1.06 MEAN .003 MAX .96 MIN .00 AC-FT 2.1

08401500 PECOS RIVER BELOW MAJOR JOHNSON SPRINGS NEAR CARLSBAD, NM

LOCATION.--Lat 32°31'54", long 104°22'40", in SW¼NW¼NW¼ sec. 27, T.20 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on left bank, at mouth of Willow Draw 2.4 mi (3.9 km) downstream from South Seven Rivers, 4.2 mi (6.8 km) southeast of Seven Rivers, 6.0 mi (9.7 km) south of Lakewood, 11.5 mi (18.5 km) northwest of Carlsbad, and at mile 478.6 (770.1 km).

DRAINAGE AREA.--17,650 mi² (45,710 km²), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1971 to current year (operated as a low-flow station only). Records for January 1947 to September 1950 at site 0.5 mi (0.8 km) upstream not equivalent owing to spring inflow between sites.

GAGE.--Water-stage recorder. Datum of gage is 3,198.44 ft (974.885 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Water-discharge records good. Flow regulated by Lake Sumner and Lake McMillan (stations 08384000, 08400500). Diversions and ground-water withdrawal for irrigation of about 173,000 acres (700 km²), 1959 determination, above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge not determined; minimum 7.0 ft³/s (0.198 m³/s) July 20, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge not determined; minimum, 21 ft³/s (0.510 m³/s) Oct. 17,18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22	25	34	40	46	56	50	139	100	229	100	196
2	22	25	34	40	48	52	50	139	50	229	205	196
3	23	26	34	40	50	52	50	141	40	214	205	198
4	23	37	35	42	50	52	48	141	39	138	205	198
5	23	29	34	41	52	50	48	139	38	134	205	196
6	22	25	35	42	52	48	46	138	38	134	202	196
7	22	24	34	43	54	46	46	139	38	132	202	196
8	22	24	35	42	54	46	45	139	38	132	202	196
9	22	25	34	40	54	45	225	101	39	130	211	196
10	22	25	33	40	54	45	430	42	39	129	313	257
11	22	25	33	38	54	45	430	41	39	129	313	298
12	22	26	33	38	54	45	330	40	39	127	313	298
13	22	26	33	36	54	44	150	40	58	285	310	298
14	22	26	33	36	56	45	150	57	447	354	310	250
15	22	26	33	36	59	44	150	196	558	310	307	207
16	22	26	33	37	59	45	145	244	794	310	254	207
17	21	26	33	36	59	45	180	190	809	283	188	164
18	21	26	34	36	59	46	290	141	521	214	110	122
19	22	26	35	38	59	46	350	138	260	198	108	118
20	22	27	35	39	59	46	350	175	260	59	106	116
21	22	27	35	38	59	46	350	160	291	57	105	115
22	24	28	35	40	59	46	290	100	319	56	105	115
23	25	29	36	42	58	46	250	40	319	56	104	127
24	23	30	36	44	59	46	241	75	319	54	102	202
25	23	30	36	45	58	46	244	260	319	54	148	200
26	24	30	36	46	58	48	189	140	319	54	214	198
27	23	30	36	45	58	48	139	80	319	52	61	200
28	24	31	38	46	58	48	139	40	268	52	46	198
29	24	32	39	46	---	48	141	34	239	52	44	198
30	24	32	39	46	---	50	141	100	231	52	44	179
31	24	---	40	46	---	50	---	350	---	50	82	---
TOTAL	701	824	1083	1264	1553	1465	5687	3899	7187	4459	5424	5835
MEAN	22.6	27.5	34.9	40.8	55.5	47.3	190	126	240	144	175	195
MAX	25	37	40	46	59	56	430	350	809	354	313	298
MIN	21	24	33	36	46	44	45	34	38	50	44	115
AC-FT	1390	1630	2150	2510	3080	2910	11280	7730	14260	8840	10760	11570

WTR YR 1979 TOTAL 39381 MEAN 108 MAX 809 MIN 21 AC-FT 78110

08401500 PECOS RIVER BELOW MAJOR JOHNSON SPRINGS NEAR CARLSBAD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1960, 1962, 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
JAN 19...	--	38	2930	7.7	16.0	2100	2100	620	140	430	4.1
MAR 21...	1030	46	4250	7.7	18.5	2000	1900	580	140	450	4.4
APR 27...	1015	139	5100	7.9	20.0	1900	1800	500	160	760	7.6

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
JAN 19...	5.6	90	0	74	1700	890	.9	14	4120	3850
MAR 21...	5.7	140	0	110	1600	800	.9	15	4170	3670
APR 27...	8.5	140	0	110	1400	1400	.8	8.0	4840	4310

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
JAN 19...	--	40	7800
MAR 21...	1030	40	6100
APR 27...	1015	50	7500

08401900 ROCKY ARROYO AT HIGHWAY BRIDGE, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'23", long 104°22'28", in SE¼SE¼ sec.3, T.21 S., R.25 E., Eddy County, Hydrologic Unit 13060011, at downstream end of bridge pier nearest left bank on U.S. Highway 285, 2.1 mi (3.4 km) upstream from mouth and 10 mi (16.1 km) northwest of Carlsbad. Mouth at Pecos River mile 475.2 (764.6 km).

DRAINAGE AREA.--285 mi (738 km^2), approximately.

PERIOD OF RECORD.--October 1963 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,250 ft (991 m), from topographic map.

REMARKS.--Records good. Diversions for irrigation of 220 acres (89.0 hm^2), above station.

AVERAGE DISCHARGE.--16 years, 9.42 ft^3/s (0.267 m^3/s) 6,820 acre-ft/yr (8.41 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,600 ft^3/s (895 m^3/s) Aug. 23, 1966, gage height, 15.35 ft, (4.679 m), from rating curve extended above 8,500 ft^3/s (156 m^3/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Since about 1941 the maximum discharge probably occurred Oct. 7, 1954, discharge 63,600 ft^3/s (1,800 m^3/s), gage height, 19.2 ft (5.85 m), from highwater marks on downstream end of bridge pier, by slope-area measurement at site 5 mi (8.0 km) upstream.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft^3/s (28 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 27	0100	*6,990	198	10.20	3.109
May 31	2300	3,260	92.3	8.55	2.606

No flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.0	.00	.00	.00	.00	.00	.00	.00	290	.00	.00	.00
2	2.6	.00	.00	.00	.00	.00	.00	.00	19	.00	.00	.00
3	1.6	.00	.00	.00	.00	.00	.00	.00	6.5	.00	.00	.00
4	1.1	15	.00	.00	.00	.00	.00	.00	8.7	.00	.00	.00
5	.88	9.8	.00	.00	.00	.00	.00	.00	4.6	.00	.00	.00
6	.66	.30	.00	.00	.00	.00	.00	.00	.77	.00	.00	.00
7	.21	.00	.00	.00	.00	.00	.00	.00	.33	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.22	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.14	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.24	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	962	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	24	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	1.7	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	177	---	.00	.00	---
TOTAL	11.05	25.10	.00	.00	.00	.00	.00	1164.70	330.26	.24	.00	.00
MEAN	.36	.84	.000	.000	.000	.000	.000	37.6	11.0	.008	.000	.000
MAX	4.0	15	.00	.00	.00	.00	.00	962	290	.24	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	22	50	.00	.00	.00	.00	.00	2310	655	.5	.00	.00

CAL YR 1978 TOTAL 6625.81 MEAN 18.2 MAX 5060 MIN .00 AC-FT 13140
WTR YR 1979 TOTAL 1531.35 MEAN 4.20 MAX 962 MIN .00 AC-FT 3040

08402000 PECOS RIVER AT DAMSITE 3, NEAR CARLSBAD, NM

LOCATION.--Lat 32°30'40", long 104°19'58", in lot 14, sec.6, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank at damsite 3 of Carlsbad project of Bureau of Reclamation, about 1 mi (1.6 km) upstream from flow line of Lake Avalon, 1.3 mi (2.1 km) downstream from Rocky Arroyo, 8.0 mi (12.9 km) northwest of Carlsbad, and at mile 473.8 (762.3 km).

DRAINAGE AREA.--17,980 mi^2 (46,570 km^2), approximately (contributing area).

PERIOD OF RECORD.--August 1939 to December 1940, August 1944 to current year.

REVISED RECORDS.--WSP 1512: 1946-47(M), 1948(p), 1949, 1950(P). WSP 1712: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3,171.31 ft (966.615 m) Bureau of Reclamation datum. Prior to Aug. 10, 1944, at site 1,000 ft (305 m) downstream, at datum 1.00 ft (0.035 m) higher. Aug. 10, 1944, to Dec. 31, 1966, at present site at datum 1.00 ft (0.305 m) higher.

REMARKS.--Records good. Flow regulated by Lake Sumner and Lake McMillan (stations 08384000, 08400500). Diversions and ground-water withdrawals for irrigation of about 173,000 acres (700 km^2), 1959 determination, above station. Discharge represents inflow to Lake Avalon. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--36 years (1940, 1945-79), 159 ft^3/s (4.503 m^3/s), 115,200 acre-ft/yr (142 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,000 ft^3/s (1,950 m^3/s) Aug. 23, 1966, gage height, 21.32 ft (6.194 m), present datum, from floodmark, from rating curve extended above 25,000 ft^3/s (708 m^3/s) on basis of slope-area measurement at gage height 19.53 ft (5.953 m) present datum; minimum, 4.3 ft^3/s (0.12 m^3/s) Aug. 5, 1954.

EXTREMES OUTSIDE PERIOD OF RECORD.--Peaks which probably exceeded 40,000 ft^3/s (1,130 m^3/s) occurred in August 1893, Oct. 2, 1904, July 25, 1905, Apr. 17, 1915, Aug. 7, 1916, and May 30, 1937, based primarily on records for station "at Carlsbad." Peak of May 22, 1941, was estimated at 60,000 ft^3/s (1,700 m^3/s). Floods of 1893 and 1904 originated above McMillan Dam and contributed to the two failures of Avalon Dam.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,700 ft^3/s (48 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 27	0130	*4,330	123	7.86	2.396
June 1	0130	3,270	92.7	6.91	2.106

Minimum, 23 ft^3/s (0.651 m^3/s) Oct. 12, 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	23	27	33	40	43	52	44	130	658	231	68	185
2	23	26	33	39	43	49	44	128	42	228	199	191
3	23	34	34	39	44	52	44	130	35	224	205	193
4	23	98	35	39	44	52	43	132	36	132	202	193
5	23	35	34	39	46	53	43	135	38	130	196	196
6	23	27	35	40	48	52	43	132	38	128	196	199
7	23	25	36	40	46	50	43	128	36	126	196	199
8	23	25	36	40	45	48	42	130	38	126	193	196
9	23	24	36	40	48	49	186	120	40	126	191	196
10	24	24	36	40	48	50	424	45	40	126	291	231
11	23	24	36	42	48	50	424	40	40	126	298	278
12	23	24	36	39	49	49	327	39	40	123	298	282
13	23	24	36	39	50	49	146	38	42	244	298	282
14	23	24	36	39	49	48	146	39	425	374	298	245
15	23	23	36	40	49	49	146	159	527	312	298	199
16	23	24	36	40	50	49	144	234	790	312	257	199
17	23	24	36	42	49	50	181	195	810	296	189	171
18	23	25	36	43	49	49	289	128	600	213	108	110
19	23	25	36	42	49	48	350	123	269	329	106	110
20	23	25	36	42	49	50	350	161	269	62	104	110
21	23	25	36	42	48	50	354	164	285	60	102	110
22	24	25	36	40	48	46	316	106	322	60	102	110
23	29	25	36	42	48	49	253	40	322	58	102	110
24	27	26	36	44	49	49	250	68	322	56	102	177
25	24	26	38	43	49	49	247	247	329	55	126	182
26	25	26	38	44	50	49	206	158	326	55	208	182
27	26	26	38	43	50	49	139	1010	322	55	91	182
28	26	27	36	44	50	49	135	50	281	54	46	182
29	26	28	38	44	---	43	135	34	237	54	46	180
30	26	29	39	44	---	46	137	82	231	54	46	170
31	27	---	40	44	---	45	---	327	---	54	58	---
TOTAL	744	850	1119	1278	1338	1522	5631	4652	7790	4583	5220	5550
MEAN	24.0	28.3	36.1	41.2	47.8	49.1	188	150	260	148	168	185
MAX	29	98	40	44	50	53	424	1010	810	374	298	282
MIN	23	23	33	39	43	43	42	34	35	54	46	110
AC-FT	1480	1690	2220	2530	2650	3020	11170	9230	15450	9090	10350	11010

CAL YR 1978 TOTAL 41794 MEAN 115 MAX 5580 MIN 15 AC-FT 82900
WTR YR 1979 TOTAL 40277 MEAN 110 MAX 1010 MIN 23 AC-FT 79890

08403500 CARLSBAD MAIN CANAL AT HEAD, NEAR CARLSBAD, NM

LOCATION.--Lat 32°29'25", long 104°15'08", in NW¼SW¼SW¼ sec.12, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank 220 ft (67 m) downstream from headgates in Avalon Dam, and 3.3 mi (5.3 km), north of Carlsbad. Pecos River mile 467.2 (751.7 km).

PERIOD OF RECORD.--July 1939 to current year (monthly discharge only July 1939 to September 1965). January 1941 to March 1951 published in WSP 1732.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,156.50 ft (962.101 m) Bureau of Reclamation datum. Prior to March 1951 at site 20 ft (6.1 m) upstream at datum 0.9 ft (0.274 m) higher.

REMARKS.--Records good. Carlsbad main canal diverts water from Lake Avalon for irrigation of about 25,000 acres (100 km²) in the Carlsbad Irrigation District. About 1,600 acres (6.5 km²) are irrigated, on the left bank, most of it above gaging station 08405200. The remaining acreage (most of which is downstream from station 08405200) is on the right bank.

AVERAGE DISCHARGE.--40 years, 104 ft³/s (2.945 m³/s), 75,350 acre-ft/yr (92.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 526 ft³/s (14.9 m³/s) Sept. 15, 16, 1946; no flow many days each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	102	29	211	135	135
2	.00	.00	.00	.00	.00	.00	80	113	.00	207	149	111
3	.56	.33	.00	.00	.00	.00	163	132	.00	196	140	124
4	.00	1.6	.00	.00	.00	.00	216	131	.00	149	152	149
5	.00	.00	.00	.00	.00	.00	247	110	.00	119	144	166
6	.00	.00	.00	.00	.00	.00	279	105	45	146	164	169
7	.00	.00	.00	.00	.00	.00	284	105	68	176	234	205
8	.00	.00	.00	.00	.00	.00	288	107	60	191	241	220
9	.00	.00	.00	.00	.00	.00	319	119	57	198	240	222
10	.00	.00	.00	.00	.00	.00	291	131	57	218	324	243
11	.00	.00	.00	.00	.00	.00	230	156	64	229	343	276
12	.00	.00	.00	.00	.00	.00	176	131	86	290	314	274
13	.00	.00	.00	.00	.00	.00	154	110	98	328	322	280
14	.00	.00	.00	.00	.00	.00	131	133	99	293	320	251
15	.00	.00	.00	.00	.00	.00	147	185	119	290	298	187
16	.00	.00	.00	.00	.00	.00	213	230	147	296	264	156
17	.00	.00	.00	.00	.00	.00	268	185	166	236	220	129
18	.00	.00	.00	.00	.00	.00	268	176	219	187	126	107
19	.00	.00	.00	.00	.00	.00	292	169	286	119	63	105
20	.00	.00	.00	.00	.00	.00	290	135	284	25	113	102
21	.00	.00	.00	.00	.00	.00	286	117	288	.00	116	94
22	.00	.00	.00	.00	.00	.00	247	79	298	.00	105	87
23	.00	.00	.00	.00	.00	.00	232	100	318	.00	137	92
24	.00	.00	.00	.00	.00	.00	258	139	304	.00	140	140
25	.00	.00	.00	.00	.00	.00	249	151	314	47	142	169
26	.00	.00	.00	.00	.00	.00	191	151	351	79	128	162
27	.00	.00	.00	.00	.00	.00	159	118	322	113	.00	173
28	.00	.00	.00	.00	.00	.00	156	93	282	105	12	169
29	.00	.00	.00	.00	---	.00	119	96	260	93	65	171
30	.00	.00	.00	.00	---	.00	94	144	216	129	121	157
31	.00	---	.00	.00	---	.00	---	110	---	132	126	---
TOTAL	.56	1.93	.00	.00	.00	.00	6327.00	4063	4837.00	4802.00	5418.00	5025
MEAN	.018	.064	.000	.000	.000	.000	211	131	161	155	175	168
MAX	.56	1.6	.00	.00	.00	.00	319	230	351	328	343	280
MIN	.00	.00	.00	.00	.00	.00	.00	79	.00	.00	.00	87
AC-FT	1.1	3.8	.00	.00	.00	.00	12550	8060	9590	9520	10750	9970

CAL YR 1978 TOTAL 28832.89 MEAN 79.0 MAX 379 MIN .00 AC-FT 57190
WTR YR 1979 TOTAL 30474.49 MEAN 83.5 MAX 351 MIN .00 AC-FT 60450

08403800 LAKE AVALON NEAR CARLSBAD, NM

LOCATION.--Lat 32°29'27", long 104°15'05", in NW¼SW¼ sec.12, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on headwall at outlet gate of dam on Pecos River, 3.3 mi (5.3 km) north of Carlsbad, and at mile 467.2 (751.7 km).

DRAINAGE AREA.--18,070 mi^2 (46,800 km^2), approximately (contributing area).

PERIOD OF RECORD.--January 1939 to September 1965 (monthend gage heights and contents). October 1965 to current year. Monthend gage heights January 1919 to December 1938 in files of Pecos River Commission.

REVISED RECORDS.--WSP 898: 1939.

GAGE.--Nonrecording gage. Datum of gage is 3,157.0 ft (962.25 m) National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation)

REMARKS.--Lake is formed by Avalon Dam, an earthfill structure. The original Eddy (Avalon) Dam was completed and storage began in 1891. The dam was destroyed by flood of Aug. 3, 1893; repaired immediately. The dam was destroyed again Oct. 2, 1904; construction of present dam commenced on June 1, 1906, and was 88 percent complete June 30, 1907. Capacity (based on Aug. 1964 survey), 4,970 acre-ft (6.1 hm^3) between gage heights 0.0 (sill of outlet gates) and 20.4 ft (6.22 m), crest of spillway 2. No dead storage. No storage allocated to flood control. Figures given herein represent usable contents. Water is used by Carlsbad Irrigation District.

COOPERATION.--Capacity table based on data furnished by Carlsbad Irrigation District.

EXTREMES FOR PERIOD OF RECORD (SINCE 1938).--Maximum contents, 11,000 acre-ft (13.6 hm^3) May 22, 1941, gage height, 25.0 ft (7.62 m); no storage at times when natural flow was passing through reservoir.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 5,620 acre-ft (6.93 hm^3) June 18, gage height, 21.05 ft (6.416 m); mimimum, 791 acre-ft (975,000 m^3) Aug. 25, gage height, 14.80 ft (4.511 m).

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4920	4560	4840	4880	4880	4920	4920	2330	4070	3810	1880	872
2	4880	4560	4840	4880	4880	4920	4920	2360	4300	3770	1770	982
3	4880	4560	4840	4880	4880	4920	4700	2330	4300	3730	1880	1100
4	4840	4700	4840	4880	4880	4920	4340	2330	4300	3690	1940	1190
5	4840	5170	4840	4880	4880	4920	3890	2260	4380	3650	2020	1220
6	4840	5070	4840	4880	4920	4920	3450	2300	4380	3610	2080	1280
7	4740	4970	4840	4880	4920	4920	2850	2220	4250	3410	2050	1250
8	4740	4970	4840	4880	4920	4920	2360	2260	4160	3330	1940	1160
9	4740	4970	4840	4880	4920	4920	1800	2260	4020	3170	1800	1070
10	4700	4970	4840	4880	4920	4920	1740	2190	3940	3010	1640	982
11	4700	4970	4840	4880	4920	4920	2020	1980	3810	2780	1540	955
12	4700	4970	4840	4880	4920	4920	2400	1640	3610	2440	1440	955
13	4700	4970	4840	4880	4920	4920	2590	1440	3490	1940	1440	982
14	4660	4970	4840	4880	4920	4920	2550	1250	3410	1910	1350	928
15	4610	4970	4840	4880	4920	4920	2550	1040	4160	1910	1280	900
16	4610	4920	4840	4880	4920	4920	2480	955	5370	1940	1280	928
17	4610	4920	4840	4880	4920	4920	2260	1320	5370	1940	1280	928
18	4610	4920	4840	4880	4920	4920	2120	1280	5620	1980	1190	1010
19	4560	4920	4840	4880	4920	4920	2190	1160	5170	2190	1190	1010
20	4560	4920	4840	4880	4920	4920	2260	1070	4970	2620	1070	1010
21	4560	4920	4840	4880	4920	4920	2330	1100	4790	2700	1100	982
22	4520	4840	4880	4880	4920	4920	2480	1190	4610	2780	1100	982
23	4560	4840	4880	4880	4920	4920	2550	1160	4560	2850	1100	982
24	4610	4840	4880	4880	4920	4920	2550	982	4480	2930	1040	1010
25	4610	4840	4880	4880	4920	4920	2440	818	4430	2970	791	1040
26	4610	4840	4880	4880	4920	4920	2400	1100	4300	2890	872	1070
27	4610	4840	4840	4880	4920	4920	2400	2220	4070	2780	1220	1040
28	4610	4840	4840	4880	4920	4920	2330	2970	3980	2590	1320	1040
29	4610	4840	4840	4880	---	4920	2260	2810	3890	2400	1250	1010
30	4560	4840	4840	4880	---	4920	2260	2700	3810	2330	1190	1010
31	4560	---	4880	4880	---	4920	---	2510	---	2160	982	---
MAX	4920	5170	4880	4880	4920	4920	4920	2970	5620	3810	2080	1280
MIN	4520	4560	4840	4880	4880	4920	1740	818	3410	1910	791	872
(+)	-410	+280	+40	0	+40	0	-2660	+250	+1300	-1650	-1178	+28

CAL YR 1978 MAX 5570 MIN .00 (+) -2760
WTR YR 1979 MAX 5620 MIN 791 (+) -3960

(+) Change in contents, in acre-feet.

08403800 LAKE AVALON NEAR CARLSBAD, NM -- CONTINUED

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20.35	19.95	20.25	20.30	20.30	20.35	20.35	17.20	19.40	19.10	16.55	14.95
2	20.30	19.95	20.25	20.30	20.30	20.35	20.35	17.25	19.65	19.05	16.40	15.15
3	20.30	19.95	20.25	20.30	20.30	20.35	20.10	17.20	19.65	19.00	16.55	15.35
4	20.25	20.10	20.25	20.30	20.30	20.35	19.70	17.20	19.65	18.95	16.65	15.50
5	20.25	20.60	20.25	20.30	---	20.35	19.20	17.10	19.75	18.90	16.75	15.55
6	20.25	20.50	20.25	20.30	20.35	20.35	18.65	17.15	19.75	18.85	16.85	15.65
7	20.15	20.40	20.25	20.30	20.35	20.35	17.90	17.05	19.60	18.60	16.80	15.60
8	20.15	20.40	20.25	20.30	20.35	20.35	17.25	17.10	19.50	18.50	16.65	15.45
9	20.15	20.40	20.25	20.30	20.35	20.35	16.45	17.10	19.35	18.30	16.45	15.30
10	20.10	20.40	20.25	20.30	20.35	20.35	16.35	17.00	19.25	18.10	16.20	15.15
11	20.10	20.40	20.25	20.30	20.35	20.35	16.75	16.70	19.10	17.80	16.05	15.10
12	20.10	20.40	20.25	20.30	20.35	20.35	17.30	16.20	18.85	17.35	15.90	15.10
13	20.10	20.40	20.25	20.30	20.35	20.35	17.55	15.90	18.70	16.65	15.90	15.15
14	20.05	20.40	20.25	20.30	20.35	20.35	17.50	15.56	18.60	16.60	15.75	15.05
15	20.00	20.40	20.25	20.30	20.35	20.35	17.50	15.25	18.50	16.60	15.65	15.00
16	20.00	20.35	20.25	20.30	20.35	20.35	17.40	15.10	20.00	16.65	15.65	15.05
17	20.00	20.35	20.25	20.30	20.35	20.35	17.10	15.70	20.80	16.65	15.65	15.05
18	20.00	20.35	20.25	20.30	20.35	20.35	16.90	15.65	21.65	16.70	15.50	15.20
19	19.95	20.35	20.25	20.30	20.35	20.35	17.00	15.45	20.60	17.00	15.50	15.20
20	19.95	20.35	20.25	20.30	20.35	20.35	17.10	15.30	20.40	17.60	15.30	15.20
21	19.95	20.35	20.25	20.30	20.35	20.35	17.20	15.35	20.20	17.70	15.35	15.15
22	19.90	20.25	20.30	20.30	20.35	20.35	17.40	15.50	20.00	17.80	15.35	15.15
23	19.95	20.25	20.30	20.30	20.35	20.35	17.50	15.45	19.95	17.90	15.35	15.15
24	20.00	20.25	20.30	20.30	20.35	20.35	17.35	15.15	19.85	18.00	15.25	15.20
25	20.00	20.25	20.30	20.30	20.35	20.35	17.35	14.85	19.80	18.05	14.80	15.25
26	20.00	20.25	20.30	20.30	20.35	20.35	17.30	15.35	19.65	17.95	14.95	15.30
27	20.00	20.25	20.25	20.30	20.35	20.35	17.30	17.05	19.40	17.80	15.55	15.25
28	20.00	20.25	20.25	20.30	20.35	20.35	17.20	18.05	19.30	---	15.70	15.25
29	20.00	20.25	20.25	20.30	---	20.35	17.10	17.85	19.20	17.30	15.60	15.20
30	19.95	20.25	20.25	20.30	---	20.35	17.10	17.70	19.10	17.20	15.50	15.20
31	19.95	---	20.30	20.30	---	20.35	---	17.45	---	16.95	15.15	---
MEAN	20.07	20.30	20.26	20.30	---	20.35	17.71	16.38	19.64	---	15.85	15.23
MAX	20.35	20.60	20.30	20.30	---	20.35	20.35	18.05	21.65	---	16.85	15.65
MIN	19.90	19.95	20.25	20.30	---	20.35	16.35	14.85	18.50	---	14.80	14.95

08404000 PECOS RIVER BELOW AVALON DAM, NM

LOCATION.--Lat 32°28'55", long 104°15'47", in SW¼SW¼NE¼ sec.14, T.21 S., R.26 E., Eddy County, Hydrologic Unit 13060011, on right bank 4,800 ft (1,460 m) below Avalon Dam, 4.5 mi (7.2 km) northwest of Carlsbad, and at mile 466.3 (750.3 km).

DRAINAGE AREA.--18,080 mi² (46,830 km²), approximately (contributing area).

PERIOD OF RECORD.--January 1906 to March 1907, (published as "at Avalon"), June 1951 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 3,130 ft (954 m), from topographic map. January 1906 to March 1907 nonrecording gage at site 0.5 mi (0.8 km) upstream at different datum.

REMARKS.--Records good. Flow regulated by Lake Sumner, Lake McMillan, and Lake Avalon (stations 08384000, 09400500, 08403800). Diversions and ground-water withdrawals above station for irrigation of about 198,000 acres (800 km²), 1959 determination. Station bypassed by Carlsbad main canal (station 08403500).

AVERAGE DISCHARGE.--28 years 34.1 ft³/s (0.966 m³/s), 24,700 acre-ft/yr (30.5 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 55,500 ft³/s (1,570 m³/s) Aug. 23, 1966, gage height, 26.4 ft (8.05 m), from floodmarks, from rating curve extended above 33,000 ft³/s (935 m³/s) on basis of computation of peak flow over Tansill Dam 5.8 mi (1.3 km) downstream; no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 2, 1904, caused in part, by failure of Avalon Dam, probably exceeded 90,000 ft³/s (2,550 m³/s) and is probably the greatest flood since 1842. A major flood occured Aug. 3, 1893, and was described as "greatest in 50 years"; it damaged McMillan Dam, then under construction, and washed out the original Avalon Dam. Another major flood occurred Aug. 7, 1916, discharge 70,000 ft³/s (1,980 m³/s) at site 6.5 mi (10.5 km) downstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 661 ft³/s (18.7 m³/s) June 17, gage height, 6.16 ft (1.878 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.0	.00	.00	.00	7.1	8.5	1.4	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	7.1	11	1.2	.00	.00	.00	.00	.00
3	.00	.00	.00	.00	7.1	9.6	.04	.00	.00	.00	.00	.00
4	.00	48	.00	.00	7.1	7.1	.00	.00	.00	.00	.00	.00
5	.00	88	.00	.00	13	7.9	.00	.00	.00	.00	.00	.00
6	.00	30	.00	.12	13	8.5	.00	.00	.00	.00	.00	.00
7	.00	9.6	.00	2.9	12	7.9	.00	.00	.00	.00	.00	.00
8	.00	3.2	.00	2.8	10	9.0	.00	.00	.00	.00	.00	.00
9	.00	.15	.00	2.5	7.1	8.5	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	3.6	7.1	9.0	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	3.9	7.4	7.1	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	5.4	7.9	7.4	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	5.8	7.4	7.9	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	3.6	8.5	8.5	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	3.4	7.4	6.1	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	4.1	10	6.4	.00	1.2	132	.00	.00	.00
17	.00	.00	.00	5.1	7.4	6.7	.00	.48	661	.00	.00	.00
18	.00	.00	.00	7.9	7.4	7.9	.00	.00	512	.00	.00	.00
19	.00	.00	.00	7.4	8.5	6.4	.00	.00	142	.00	.00	.00
20	.00	.00	.00	6.4	9.0	8.5	.00	.00	6.7	.00	.00	.00
21	.00	.00	.00	4.8	8.5	7.9	.00	.00	.45	.00	.00	.00
22	.00	.00	.00	6.7	9.6	7.4	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	5.4	7.9	3.4	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	3.6	8.5	4.1	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	6.7	6.4	4.1	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	8.5	7.1	3.9	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	5.4	9.0	4.1	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	5.8	7.1	3.2	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	7.1	---	4.1	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	6.7	---	2.1	.00	.00	.00	.00	.00	.00
31	.00	---	.00	6.4	---	2.1	---	.00	---	.00	.00	---
TOTAL	1.00	178.95	.00	132.02	235.6	206.3	2.64	1.68	1454.15	.00	.00	.00
MEAN	.032	5.97	.000	4.26	8.41	6.65	.088	.054	48.5	.000	.000	.000
MAX	1.0	88	.00	8.5	13	11	1.4	1.2	661	.00	.00	.00
MIN	.00	.00	.00	.00	6.4	2.1	.00	.00	.00	.00	.00	.00
AC-FT	2.0	355	.00	262	467	409	5.2	3.3	2880	.00	.00	.00

CAL YR 1978 TOTAL 6580.85 MEAN 18.0 MAX 3850 MIN .00 AC-FT 13050
WTR YR 1979 TOTAL 2212.34 MEAN 6.06 MAX 661 MIN .00 AC-FT 4390

08405000 PECOS RIVER AT CARLSBAD, NM

LOCATION.--Lat 32°24'42", long 104°13'17", in SE¼NE¼ sec. 7, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, immediately downstream from Lower Tansil Dam, which is approximately 0.2 mi (0.3 km) upstream from Dark Canyon, and 0.5 mi (0.8 km) downstream from the Greene Street Bridge on U.S. Highway 62-180 in Carlsbad.

DRAINAGE AREA.--18,100 mi^2 (46,900 km^2), approximately (contributing area).

PERIOD OF RECORD.--Water years 1905-07, 1937-46, 1951 to current year.

PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: May 1905 to April 1907, May 1937 to September 1946, July 1951 to current year.
WATER TEMPERATURES: July 1951 to current year.
HARDNESS: May 1905 to April 1907, May 1937 to September 1946, July 1951 to current year.
DISSOLVED SOLIDS: May 1905 to April 1907, May 1937 to September 1946, July 1951 to current year.

REMARKS.--Prior to impoundment above Lower Tansil Dam in January 1970 samples were collected at gage on Greene Street Bridge. Additional samples were collected at 08405200 Pecos River below Dark Canyon for comparison with those collected at this station. Mean daily discharges are estimated from discharge station below Dark Canyon.

EXTREMES FOR PERIOD OF DAILY RECORD.—
SPECIFIC CONDUCTANCE: Maximum daily, 6,800 micromhos Aug. 3, 1974; minimum daily, 401 micromhos Sept. 23, 1974.
WATER TEMPERATURES: Maximum, 38.0°C May 28, 1969; minimum, 0.0°C Dec. 18, 1965.
HARDNESS: Maximum, 2,400 mg/L July 1-31, 1974; minimum, 190 mg/L Sept. 26, 1978.
DISSOLVED SOLIDS: Maximum, 4,680 mg/L July 1-31, 1974; minimum, 252 mg/L Sept. 26, 1978.

EXTREMES FOR CURRENT YEAR.—
SPECIFIC CONDUCTANCE: Maximum daily, 4,140 micromhos May 3; minimum daily, 645 micromhos Oct. 1.
WATER TEMPERATURES: Maximum, 28.5°C July 29; minimum, 4.5°C Jan. 3.
HARDNESS: Maximum, 1,500 mg/L Feb. 1-28, Apr. 1-30, July 1-31, Sept. 1-24, 25-30; minimum, 320 mg/L Oct. 1-6.
DISSOLVED SOLIDS: Maximum, 2,960.mg/L May 4-26; minimum, 516 mg/L Oct. 1-6.

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW (CFS) (00060)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
OCT											
01-06	26	802	7.9	320	220	89	23	39	1.0	4.6	95
07-13	27	1690	8.0	620	500	160	54	140	2.4	5.0	120
14-23	28	2610	8.1	1000	780	260	86	220	3.0	5.3	220
24-31	27	2820	8.0	1100	920	280	93	250	3.3	5.2	160
NOV											
01-03	71	3230	8.0	1200	990	280	110	300	3.8	7.0	160
04-05	342	2180	8.0	780	670	200	68	190	3.0	5.7	110
06...	63	1060	7.6	390	310	110	28	77	1.7	4.2	78
07...	40	1470	7.8	500	410	130	42	110	2.1	4.7	88
08-14	34	2360	8.1	880	750	230	73	210	3.1	5.9	130
15-30	32	3200	8.1	1200	1100	310	110	290	3.6	7.0	150
DEC											
01-31	33	3670	7.8	1400	1300	360	120	330	3.8	5.5	91
JAN											
01-31	37	3570	7.9	1400	1300	380	120	330	3.8	5.5	160
FEB											
01-28	40	3790	7.8	1500	1300	390	120	340	3.9	4.9	140
MAR											
01-31	40	3810	7.8	1400	1300	380	120	350	4.0	5.1	150
APR											
01-30	32	3950	7.9	1500	1400	400	130	390	4.3	5.0	140
MAY											
01-03	1.1	3930	7.9	1400	1300	380	120	380	4.4	6.1	140
04-26	26	3850	7.8	1400	1300	370	120	360	4.2	6.8	140
27...	206	2920	7.6	1000	920	270	86	280	3.8	5.2	110
28-31	47	3610	7.8	1300	1200	340	110	350	4.2	5.8	130
JUN											
01-02	72	2410	7.7	840	740	220	70	240	3.6	5.9	93
03-30	74	3370	7.8	1300	1200	360	93	330	4.0	6.4	120
JUL											
01-31	30	3690	7.9	1500	1300	370	130	350	4.0	5.9	130
AUG											
01-31	33	3600	7.8	1200	1100	300	120	350	4.3	4.6	130
SEP											
01-24	26	3710	7.9	1500	1400	370	140	350	3.9	5.5	130
25-30	21	3750	7.8	1500	--	390	120	360	4.1	5.3	--
WTD. AVG.	--	3410	7.9	1290	1170	339	110	319	3.8	5.6	133
TIME WTD. AVG.	38	3480	7.9	1320	1200	345	114	325	3.8	5.5	135
TOT. LOAD (TONS)	--	--	--	--	--	12800	4140	12000	--	211	4970

08405000 PECOS RIVER AT CARLSBAD, NM

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT											
01-06	220	73	.2	10	530	516	.70	36.2	--	60	10
07-13	480	220	.4	13	1180	1140	1.55	83.1	--	110	,0
14-23	770	360	.5	14	1880	1850	2.52	140	--	170	10
24-31	850	400	.5	14	2080	1990	2.71	145	--	190	30
NOV											
01-03	930	460	.6	16	--	2210	3.01	424	1.4	--	--
04-05	660	310	.4	12	--	1520	2.07	1400	.96	--	--
06...	290	140	.2	6.6	--	705	.96	120	.56	--	--
07...	370	180	.3	8.6	--	902	1.23	97.4	.73	--	--
08-14	680	320	.4	12	--	1610	2.19	148	.97	--	--
15-30	980	460	.6	15	--	2270	3.09	196	1.3	--	--
DEC											
01-31	1200	570	.7	17	--	2670	3.63	244	1.8	--	--
JAN											
01-31	1200	580	.7	15	--	2730	3.71	273	1.5	--	--
FEB											
01-28	1200	580	.8	14	--	2740	3.73	296	1.2	--	--
MAR											
01-31	1200	560	.7	12	--	2720	3.70	294	1.0	--	--
APR											
01-30	1300	600	.7	13	--	2930	3.98	253	1.2	--	--
MAY											
01-03	1200	610	.8	12	--	2790	3.79	8.29	--	260	10
04-26	1200	610	.8	13	2960	2770	3.77	194	--	310	20
27...	850	440	.6	9.5	--	2010	2.73	1120	--	200	0
28-31	1100	570	.7	12	2710	2570	3.50	326	--	210	30
JUN											
01-02	670	370	.4	8.4	--	1650	2.24	321	1.1	--	--
03-30	1100	530	.7	12	--	2510	3.41	502	.71	--	--
JUL											
01-31	1300	550	.7	16	--	2800	3.81	227	.92	--	--
AUG											
01-31	1100	510	.7	18	--	2490	3.39	222	1.0	--	--
SEP											
01-24	1200	580	.7	16	--	2740	3.73	192	.94	--	--
25-30	1200	570	.7	18	--	2670	3.63	151	1.1	--	--
WTD. AVG.	1090	517	.7	14	--	2480	3.37	--	1.1	--	--
TIME WTD. AVG.	1120	527	.7	14	--	2530	3.45	--	1.2	--	--
TOT. LOAD (TONS)	41200	19500	25	527	--	93700	--	--	36	--	--

RIO GRANDE BASIN
08405000 PECOS RIVER AT CARLSBAD, NM

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	645	3220	3480	3560	3760	3750	3880	3910	2340	3690	3630	3500
2	693	3220	3580	3610	3750	3770	3890	3960	2640	3710	3680	3550
3	756	3250	3610	3630	3750	3800	3950	4140	3120	3720	3750	3560
4	800	2600	3600	3650	3760	3780	3960	4060	3140	3730	3710	3620
5	931	1860	3630	3650	3700	3820	3980	4070	3370	3740	3750	3630
6	989	1060	3670	3650	3650	3810	3980	4090	3240	3760	3710	3690
7	1310	1470	3680	3670	3650	3810	3980	4080	3490	3790	3710	3730
8	1440	1740	3690	3680	3640	3780	3990	4070	3510	3800	3730	3830
9	1610	2230	3680	3660	3660	3770	4000	4060	3460	3800	3770	3750
10	1700	2400	3690	3680	3680	3740	3980	4040	3440	3810	3710	3830
11	1760	2430	3690	3670	3740	3740	4000	4040	3410	3800	3790	3840
12	1860	2540	3730	3650	3750	3740	4020	4030	3420	3810	3830	3840
13	2080	2570	3660	3590	3790	3740	4060	4020	3450	3840	3800	3840
14	2200	2630	3660	3560	3820	3760	4010	4000	3410	3850	3710	3830
15	2440	2730	3640	3590	3840	3800	4010	3980	3500	3870	3560	3820
16	2430	2810	3630	3590	3850	3840	4010	3960	3500	3850	3680	3790
17	2510	2890	3640	3600	3860	3850	3940	3690	3380	3860	3900	3740
18	2610	2980	3620	3600	3850	3840	3940	3480	3340	3880	3730	3600
19	2720	3040	3620	3610	3850	3870	3920	3540	3310	3830	3690	3600
20	2740	3070	3620	3610	3870	3930	3900	3580	3340	3470	3690	3650
21	2820	3140	3660	3600	3870	3870	3880	3630	3310	3340	3590	3670
22	2880	3200	3660	3590	3890	3840	3870	3630	3300	3480	3740	3670
23	2710	3300	3720	3560	3890	3870	3850	3700	3380	3530	3710	3690
24	2520	3360	3690	3560	3890	3850	3910	3710	3410	3590	3690	3690
25	2830	3440	3660	3590	3870	3820	3940	3740	3450	3620	3670	3710
26	2790	3440	3640	3610	3870	3840	3960	3600	3400	3630	3740	3730
27	2830	3450	3640	3650	3830	3830	3980	2920	3410	3640	2840	3740
28	2930	3490	3640	3660	3840	3800	3980	3230	3400	3680	3120	3780
29	2720	3490	3640	3680	---	3790	3980	3660	3540	3710	3140	3770
30	3120	3490	3640	3680	---	3790	3940	3760	3570	3730	3260	3810
31	3150	---	3660	3690	---	3820	---	3840	---	3740	3300	---
MEAN	2110	2820	3650	3630	3790	3810	3960	3810	3330	3720	3620	3720

WTR YR 1979 MEAN 3500 MAX 4140 MIN 645

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	15.5	12.5	6.0	7.5	12.5	17.5	24.0	19.0	27.5	27.5	25.5
2	19.0	16.0	11.0	5.0	7.0	12.0	14.5	23.5	21.0	26.0	28.0	27.5
3	19.5	17.0	12.5	4.5	7.5	10.5	15.0	18.5	20.0	26.0	26.0	26.5
4	19.5	16.0	10.0	5.0	8.5	11.0	14.5	18.5	22.0	26.0	26.5	25.5
5	19.0	15.5	10.5	6.5	7.5	10.5	15.0	19.0	22.5	26.0	27.5	25.5
6	20.0	15.0	9.5	6.0	7.5	10.0	15.5	21.0	23.0	26.5	26.0	25.0
7	19.5	14.0	7.5	6.0	8.0	11.0	17.5	19.0	23.0	26.5	26.5	25.0
8	19.5	14.5	6.0	5.5	8.0	12.0	18.5	19.0	24.0	26.5	26.5	25.5
9	19.5	14.5	5.5	5.0	9.0	12.5	17.5	20.0	23.5	26.0	27.0	27.5
10	19.0	15.0	6.0	5.0	11.0	12.0	17.5	19.0	23.0	27.0	26.0	25.0
11	20.0	15.0	5.5	5.0	11.0	12.5	12.0	19.0	22.5	26.0	26.0	25.0
12	20.0	14.0	5.5	5.5	10.5	13.0	9.0	19.5	23.5	26.0	26.0	24.5
13	19.0	13.0	5.5	7.0	10.5	12.5	10.5	20.0	24.0	26.0	25.5	24.0
14	19.0	13.0	6.5	7.5	11.5	13.5	15.0	20.0	24.0	26.0	25.0	23.5
15	18.0	12.5	7.5	5.5	11.5	13.5	16.5	20.0	24.0	28.0	25.0	22.0
16	18.0	12.0	8.5	5.5	11.5	12.5	17.5	20.5	24.0	26.0	25.0	21.0
17	18.5	11.5	8.5	6.5	10.0	12.5	17.5	21.0	25.5	27.5	25.0	20.5
18	18.0	11.5	8.0	7.5	11.0	14.0	19.0	22.0	23.0	27.5	24.0	21.0
19	18.0	13.0	9.0	8.5	10.0	12.5	20.0	22.0	23.0	26.0	24.5	20.0
20	17.5	12.5	9.0	8.5	10.5	14.5	19.0	22.5	22.5	25.0	24.0	21.0
21	19.0	12.5	8.5	8.0	11.0	14.5	19.5	22.0	22.5	24.5	24.5	21.0
22	18.5	12.5	8.5	8.5	11.0	12.5	19.5	21.5	25.0	26.5	24.0	20.0
23	17.5	12.5	9.0	7.5	11.0	12.5	20.0	22.5	25.5	26.5	25.0	24.0
24	15.0	12.5	9.0	7.5	10.5	13.0	20.5	23.0	25.0	27.5	25.5	22.5
25	14.5	13.5	10.0	7.5	12.5	15.5	19.0	22.5	25.0	27.0	25.0	21.5
26	14.5	14.0	7.5	7.5	10.5	14.0	19.5	24.0	26.0	26.5	26.0	21.0
27	15.0	12.5	7.5	8.0	10.5	15.0	20.5	22.5	25.0	28.0	24.0	22.0
28	15.0	11.0	7.5	8.5	11.0	15.5	19.5	22.5	26.0	27.5	24.0	21.5
29	17.5	11.0	9.0	7.5	---	15.0	21.5	22.5	26.0	28.5	24.0	23.0
30	16.0	10.0	9.0	6.5	---	15.0	20.0	22.5	26.5	28.0	25.0	23.0
31	15.5	---	8.0	6.5	---	15.0	---	24.0	---	28.0	25.0	---
MEAN	18.0	13.5	8.5	6.5	10.0	13.0	17.5	21.0	23.5	26.5	25.5	23.5

WTR YR 1979 MEAN 17.5 MAX 28.5 MIN 4.5

08405150 DARK CANYON DRAW AT CARLSBAD, NM

LOCATION.--Lat 32°24'24", long 104°13'34", in NE¼NW¼SE¼ sec.7, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on downstream side of U.S. Highway 62-285 (Canal Street) bridge in Carlsbad, and 0.6 mi (1.0 km) upstream from mouth. Mouth at Pecos River mile 459.2 (738.9 km).

DRAINAGE AREA.--450 mi² (1,170 km²), approximately.

PERIOD OF RECORD.--January 1973 to current year.

GAGE.--Water-stage recorder. Datum of gage is 3,088.21 ft (941.286 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good. A Soil Conservation Service flood control project on Hackberry Draw, an upstream tributary, has some effect on flood peaks and flow duration. Ground-water withdrawals above station for irrigation of approximately 2,100 acres (8.5 km²), 1973 determination, and for municipal supply for Carlsbad.

AVERAGE DISCHARGE.--6 years, 7.56 ft³/s (0.214 m³/s), 5,480 acre-ft/yr (6.76 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft³/s (402 m³/s) Oct. 23, 1974, gage height, 10.80 ft (3.290 m): no flow most of time.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 23, 1966, reached a discharge of 66,000 ft³/s (1,870 m³/s) as determined by slope-area measurement at site 1.2 mi (1.9 km) upstream. Another flood of approximately the same magnitude occurred Sept. 20, 1941. Other major peaks occurred July 17, 1906, July 24, 1908, July 24, 1911, Apr. 18, 1915, Aug. 8, 1916, Sept. 15, 1919, Aug. 4, 1925, and May 23, 1941.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 500 ft³/s (14 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 3	2200	*1,360	38.5	5.58	1.701
Nov. 4	1700	960	27.2	5.00	1.524
May 27	0130	1,120	31.7	5.35	1.631

No flow most of the time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	137	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	11	.00	.00	.00
3	.00	107	.00	.00	.00	.00	.00	.00	1.2	.00	.00	.00
4	.00	355	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	96	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	8.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	5.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	3.3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.44	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	227	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	45	---	.00	.00	---
TOTAL	.00	591.74	.00	.00	.00	.00	.00	273.20	149.20	.00	.00	.00
MEAN	.000	19.7	.000	.000	.000	.000	.000	8.81	4.97	.000	.000	.000
MAX	.00	355	.00	.00	.00	.00	.00	227	137	.00	.00	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	1170	.00	.00	.00	.00	.00	542	296	.00	.00	.00

CAL YR 1978 TOTAL 5979.54 MEAN 16.4 MAX 3480 MIN .00 AC-FT 11860
WTR YR 1979 TOTAL 1014.14 MEAN 2.78 MAX 355 MIN .00 AC-FT 2010

08405200 PECOS RIVER BELOW DARK CANYON DRAW, AT CARLSBAD,NM

LOCATION.--Lat 32°24'37", long 104°12'58", in NE¼SW¼NW¼ sec.8, T.22 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on left bank, 700 ft (210 m) downstream from mouth of Dark Canyon Draw, 0.3 mi (0.5 km) downstream from Lower Tansill Dam and Bataan recreational area, 0.8 mi (1.3 km) downstream from bridge on U.S. Highway 62-180 in Carlsbad, and at mile 459.1 (738.7 km).

DRAINAGE AREA.--18,550 mi² (48,040 km²), approximately (contributing area.)

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1970 to current year.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,075.19 ft (937.318 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated by Lake Sumner, Lake McMillan, and Lake Avalon (stations 08384000, 08400500, 08403800), and at low stages by power plant above station. Gage is bypassed on left bank by Carlsbad main canal east which irrigates several hundred acres adjacent to and below gage site, and on right bank by Carlsbad main canal south, which with supplemental ground-water withdrawals irrigates about 23,000 acres (93 km²) below. Diversions and ground-water withdrawals above station for irrigation of about 198,000 acres (800 km²), 1959 determination.

AVERAGE DISCHARGE.--9 years, 53.3 ft³/s (1.509 m³/s), 38,620 acre-ft/yr (47.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft³/s (671 m³/s) Oct. 23, 1974, gage height, 13.1 ft (3.99 m), from flood marks; no flow at times.

EXTREMES OUTSIDE PERIOD OF RECORD.--The flood of Aug. 23, 1966, reached a stage of about 22 ft (6.7 m), discharge not determined. (For dates of other historical floods see station 08404000.)

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,660 ft³/s (75.3 m³/s) Nov. 3, gage height, 4.45 ft (1.356 m); minimum, 0.06 ft³/s (0.002 m³/s) May 2.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	27	26	32	33	35	34	39	.66	243	28	33	26
2	27	26	34	37	35	37	40	.11	48	28	32	26
3	25	269	47	41	37	32	39	2.4	33	26	31	26
4	26	843	36	31	39	34	40	21	40	26	33	25
5	26	291	33	33	47	34	39	23	31	26	32	25
6	25	79	31	33	46	35	41	23	29	26	30	25
7	26	49	33	33	44	37	41	23	29	28	30	25
8	26	41	31	33	42	39	42	22	29	25	31	26
9	28	39	32	31	40	37	42	23	29	26	31	28
10	28	35	32	31	39	37	27	21	26	25	30	28
11	28	33	32	31	41	35	4.8	19	27	25	30	28
12	28	34	32	33	40	35	.53	20	28	25	30	28
13	28	34	32	31	42	37	2.7	20	27	25	39	28
14	28	34	31	31	42	35	24	20	26	26	37	28
15	28	32	31	43	42	35	25	21	25	27	30	26
16	28	33	31	43	44	35	63	49	48	24	30	24
17	28	31	31	39	42	35	67	45	570	24	31	28
18	28	32	31	41	43	37	39	24	592	25	31	25
19	28	31	31	43	43	35	32	22	159	35	31	25
20	28	30	31	39	40	35	31	25	40	65	31	25
21	27	32	32	39	39	37	30	25	28	34	39	24
22	27	32	32	41	40	37	27	22	26	33	35	22
23	27	32	32	35	39	33	27	21	30	32	31	24
24	27	32	33	39	36	33	30	21	30	32	31	24
25	27	32	33	39	30	31	30	21	31	29	31	22
26	27	33	33	41	30	63	30	57	31	30	77	21
27	27	31	33	41	35	88	30	433	29	31	36	21
28	27	32	34	39	34	61	27	30	29	31	25	21
29	26	30	34	39	---	47	27	25	31	32	25	21
30	26	31	34	37	---	43	18	25	27	35	25	19
31	26	---	34	37	---	40	---	153	---	31	25	---
TOTAL	838	2339	1018	1137	1106	1223	955.03	1257.17	2371	915	1013	744
MEAN	27.0	78.0	32.8	36.7	39.5	39.5	31.8	40.6	79.0	29.5	32.7	24.8
MAX	28	843	47	43	47	88	67	433	592	65	77	28
MIN	25	26	31	31	30	31	.53	.11	25	24	25	19
AC-FT	1660	4640	2020	2260	2190	2430	1890	2490	4700	1810	2010	1480

CAL YR 1978 TOTAL 23154.79 MEAN 63.4 MAX 8850 MIN .00 AC-FT 45930
WTR YR 1979 TOTAL 14916.20 MEAN 40.9 MAX 843 MIN .11 AC-FT 29590

08405200 PECOS RIVER BELOW DARK CANYON, AT CARLSBAD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1972 to current year.

REMARKS.--Samples collected at this station for comparison with those collected at 08405000 Pecos River at Carlsbad, N. Mex.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)
OCT					
03...	1600	23	1010	7.7	23.0
NOV					
03...	1000	27	3280	7.8	16.5
DEC					
05...	1445	32	3650	7.7	17.5
JAN					
09...	1430	31	3830	7.7	6.5
FEB					
05...	1335	48	3680	7.7	2.0
MAR					
12...	0910	35	3830	7.9	12.0
APR					
03...	1115	39	3930	7.8	17.5
MAY					
02...	0925	.14	3830	7.6	--
JUN					
05...	1510	28	3580	7.9	24.0
19...	1245	146	339	7.6	26.0
JUL					
03...	0830	26	3760	7.6	26.0
AUG					
06...	1045	32	3770	7.8	27.0
SEP					
07...	1010	25	3730	7.8	29.5

08405500 BLACK RIVER ABOVE MALAGA, NM

LOCATION.--Lat 32°13'44", long 104°09'02", in SW¼NW¼SW¼ sec.12, T.24 S., R.27 E., Eddy County, Hydrologic Unit 13060011, on right bank 0.6 mi (1.0 km) upstream from Black River diversion dam, 4.6 mi (7.4 km) west of Malaga, and 7.1 mi (11.4 km) upstream from mouth. Mouth at Pecos River mile 436.3 (702.0 km).

DRAINAGE AREA.--343 mi² (888 km²).

PERIOD OF RECORD.--March to December 1940, December 1946 to current year.

REVISED RECORDS.--WSP 1632: 1948, 1949-50(P).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 3,070 ft (936 m), from topographic map. March to December 1940 water-stage recorder and Cippoletti weir at site 0.3 mi (0.5 km) downstream at different datum.

AVERAGE DISCHARGE.--32 years (1948-79), 13.4 ft³/s (0.379 m³/s), 9,710 acre-ft/yr (12.0 hm³/yr).

REMARKS.--Records good. Diversions and ground-water withdrawals for irrigation of about 1,000 acres (4.0 km²), 1959 determination, above station. Several observations of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 74,600 ft³/s (2,110 m³/s) Aug. 23, 1966, gage height, 21.7 ft (6.61 m), from floodmarks, from rating curve extended above 6,000 ft³/s (170 m³/s) on basis of slope-area measurements at gage heights 12.60 and 21.7 ft (3.840 and 6.61 m); minimum, 0.73 ft³/s (0.021 m³/s) June 25, 1969.

The flood of Aug. 23, 1966, exceeded the previous maximum stage which occurred in 1908 by about 1.0 ft (0.30 m), information from local resident.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Sept. 20 or 21, 1941, reached a stage of 19.0 ft (5.79 m) determined in 1947 from well defined flood marks, discharge, 33,000 ft³/s (935 m³/s), from rating curve extended above 1,400 ft³/s (39.6 m³/s) on basis of slope-area measurements at gage heights 8.41 and 12.60 ft (2.563 and 3.840 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 211 ft³/s (5.98 m³/s) Nov. 4, gage height, 2.23 ft (0.680 m), no peak above base of 450 ft³/s (13 m³/s); minimum, 3.3 ft³/s (0.093 m³/s) June 30, July 1.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.9	7.6	8.0	9.9	15	15	8.7	11	32	5.9	23	7.6
2	9.1	7.6	8.0	9.5	15	14	9.5	10	12	8.0	42	7.2
3	8.7	7.2	8.0	9.5	15	9.1	9.5	10	11	8.3	38	6.9
4	8.3	55	8.0	9.5	15	8.0	9.5	10	11	9.1	26	6.6
5	8.0	29	8.3	9.5	16	8.0	9.5	10	10	12	9.5	6.2
6	8.0	15	8.0	9.5	17	7.6	9.5	9.1	10	9.5	9.1	6.2
7	8.0	10	8.3	9.9	16	7.2	9.5	8.7	9.9	8.7	9.5	6.2
8	7.6	9.1	8.7	10	16	7.2	9.5	8.7	9.5	8.3	9.5	6.2
9	7.6	8.7	8.7	10	16	6.9	9.5	8.3	22	8.3	9.5	5.6
10	7.6	8.3	8.7	11	15	6.9	9.5	8.3	11	8.3	9.5	5.6
11	7.6	8.0	8.7	11	15	6.9	9.1	8.3	9.1	7.6	9.1	5.6
12	7.6	8.3	8.7	11	15	6.9	9.1	8.7	9.1	7.6	8.7	5.4
13	7.6	8.7	8.7	10	15	6.9	9.1	8.7	8.7	7.2	9.1	5.4
14	7.6	9.1	8.7	10	14	6.9	9.1	8.7	8.3	7.6	10	5.4
15	7.6	9.0	8.7	11	14	6.9	9.5	8.7	8.3	7.2	13	5.4
16	7.6	9.0	9.1	11	14	6.9	9.9	9.1	8.0	7.6	12	5.6
17	7.6	9.0	9.1	11	14	6.9	9.9	12	8.0	7.2	12	6.2
18	7.6	9.0	9.1	11	14	6.9	9.9	11	8.0	7.2	12	6.9
19	7.2	9.0	9.1	12	14	5.9	9.9	10	7.6	54	25	7.6
20	6.9	9.0	9.1	14	15	5.6	9.9	9.5	7.2	36	22	8.0
21	6.6	9.0	9.1	14	15	5.6	9.9	9.1	8.0	15	15	8.0
22	7.2	9.0	9.1	14	15	5.6	9.9	9.1	8.3	11	13	8.0
23	26	9.0	9.1	14	15	5.4	10	9.1	8.7	9.5	12	8.0
24	12	9.0	8.7	14	15	5.4	9.9	9.1	8.7	9.1	12	8.0
25	8.7	8.0	8.7	15	15	5.4	9.9	8.0	8.3	9.1	12	8.0
26	8.0	8.0	8.7	15	15	5.4	9.9	6.2	8.0	9.5	12	8.0
27	7.6	8.0	8.7	15	15	5.4	9.9	8.7	8.3	23	14	8.0
28	7.6	8.0	8.7	15	15	5.4	9.9	5.6	8.0	14	9.5	8.0
29	7.6	8.0	8.7	15	---	5.4	10	4.5	5.4	10	8.3	6.9
30	7.6	8.0	9.1	15	---	5.4	10	3.8	3.5	9.5	8.0	6.2
31	7.6	---	9.5	15	---	6.2	---	7.3	---	9.9	7.6	---
TOTAL	264.2	329.6	269.8	371.3	420	217.2	288.9	269.3	295.9	365.2	441.9	202.9
MEAN	8.52	11.0	8.70	12.0	15.0	7.01	9.63	8.69	9.86	11.8	14.3	6.76
MAX	26	55	9.5	15	17	15	10	12	32	54	42	8.0
MIN	6.6	7.2	8.0	9.5	14	5.4	8.7	3.8	3.5	5.9	7.6	5.4
AC-FT	524	654	535	736	833	431	573	534	587	724	877	402

CAL YR 1978 TOTAL 6760.5 MEAN 18.5 MAX 1710 MIN 1.7 AC-FT 13410
WTR YR 1979 TOTAL 3736.2 MEAN 10.2 MAX 55 MIN 3.5 AC-FT 7410

08406500 PECOS RIVER NEAR MALAGA, NM
(Pesticide program station)

LOCATION.--Lat 32°12'26", long 104°01'22", in SW¼NW¼NE¼ sec.19, T.24 S., R.29 E., Eddy County, Hydrologic Unit 13060011, on right bank 3.1 mi (5.0 km) southeast of Malaga, 4.3 mi (6.9 km) downstream from Black River, and at mile 432.2 (695.4 km). Water-quality sampling site 2.2 mi (3.5 km) upstream.

DRAINAGE AREA.--19,190 mi^2 (49,700 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1920 to current year. Monthly discharge only for some periods, published in WSP 1312.

REVISED RECORDS.--WSP 1632: 1925, 1932-37.

GAGE.--Water-stage recorder. Datum of gage is 2,895.64 ft (882.591 m) National Geodetic Vertical Datum of 1929. May 1, 1920, to Mar. 24, 1949, at datum 3 ft (0.91 m) higher.

REMARKS.--Water-discharge records fair. Flow regulated by storage in Lake Sumner, Lake McMillan, and Lake Avalon (stations 08384000, 08400500, 08403800), and by small diversion dams that divert for power or irrigation. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (820 km^2), 1959 determination. Harroun canal bypasses gage on left bank and irrigates approximately 1,000 acres (4.0 km^2) adjacent to and below gage. This bypass is not gaged.

AVERAGE DISCHARGE.--16 years (1921-36), 274 ft^3/s (7.760 m^3/s), 198,500 acre-ft/yr (245 hm^3/yr), prior to completion of Lake Sumner; 43 years (1938-79) 181 ft^3/s (5.126 m^3/s), 133,100 acre-ft/yr (164 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 120,000 ft^3/s (3,400 m^3/s) Aug. 23, 1966, gage height, 42.1 ft (12.83 m), from floodmarks, from rating curve extended above 36,000 ft^3/s (1,020 m^3/s), on basis of slope-area measurement at gage height 42.1 ft (12.83 m); minimum, 3.7 ft^3/s (0.10 m^3/s) Oct. 20, 1976.

The flood of Aug. 23, 1966, exceeded all floods at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in 1904, discharge not determined. Flood of Aug. 7, 1916, reached a discharge of 70,000 ft^3/s (1,980 m^3/s) at Carlsbad, 27 mi (43.4 km) upstream. Flood in September 1919 reached a stage of 29.4 ft (8.96 m), present datum, discharge, 40,400 ft^3/s (1,140 m^3/s).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,490 ft^3/s (42.2 m^3/s) Nov. 5, gage height, 8.54 ft (2.603 m), no peak above base of 1,800 ft^3/s (51 m^3/s); minimum, 9.1 ft^3/s (0.26 m^3/s) May 7, 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	73	20	55	60	54	48	42	30	256	29	37	52
2	44	20	54	59	56	47	38	30	234	25	43	57
3	29	21	50	56	57	49	33	23	99	30	39	60
4	24	279	50	54	59	49	32	16	70	31	46	51
5	20	733	49	49	65	47	32	14	56	28	36	54
6	18	209	49	49	71	47	32	12	54	28	32	63
7	18	109	50	49	74	46	32	11	50	30	36	53
8	18	73	49	49	70	46	33	13	48	29	42	45
9	18	55	51	49	65	46	33	22	75	26	38	44
10	18	45	51	49	62	45	33	22	77	25	33	45
11	18	41	50	50	60	44	34	22	51	24	38	48
12	18	36	51	50	59	43	32	20	43	23	32	49
13	18	35	51	50	59	42	24	19	42	23	31	46
14	18	35	53	53	53	41	21	19	40	24	42	58
15	18	35	53	55	52	44	18	20	39	24	57	55
16	18	36	50	56	60	41	16	22	36	31	54	62
17	18	36	46	58	60	40	14	27	40	56	47	56
18	18	37	45	59	61	38	27	45	372	41	53	81
19	18	36	45	60	62	36	63	41	382	108	65	61
20	18	41	46	64	61	35	45	24	174	199	76	63
21	18	43	47	59	60	35	34	17	84	216	77	61
22	18	47	52	52	60	33	28	16	52	103	79	56
23	19	49	52	54	60	37	27	19	37	64	95	56
24	28	50	54	51	60	32	27	19	30	48	61	56
25	43	50	53	50	59	28	26	15	28	43	56	47
26	33	50	52	54	58	29	24	15	31	40	51	45
27	24	49	53	54	51	29	24	115	30	38	150	39
28	21	50	53	52	54	64	23	196	31	41	151	44
29	20	54	54	53	---	70	23	79	28	36	69	43
30	20	55	56	53	---	53	25	49	28	32	54	47
31	20	---	59	53	---	44	---	45	---	32	56	---
TOTAL	724	2429	1583	1663	1682	1328	895	1037	2617	1529	1776	1597
MEAN	23.4	81.0	51.1	53.6	60.1	42.8	29.8	33.5	87.2	49.3	57.3	53.2
MAX	73	733	59	64	74	70	63	196	382	216	151	81
MIN	18	20	45	49	51	28	14	11	28	23	31	39
AC-FT	1440	4820	3140	3300	3340	2630	1780	2060	5190	3030	3520	3170

CAL YR 1978 TOTAL 28722.8 MEAN 78.7 MAX 14600 MIN 6.0 AC-FT 56970
WTR YR 1979 TOTAL 18860.0 MEAN 51.7 MAX 733 MIN 11 AC-FT 37410

08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 2.5 mi (4.0 km) upstream from discharge station.

PERIOD OF RECORD.--Water years 1937 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1937 to current year.
WATER TEMPERATURES: February 1959 to current year.
HARDNESS: July 1937 to current year.
DISSOLVED SOLIDS: July 1937 to current year.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of heavy local rains.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 28,100 micromhos June 7, 1966; minimum daily, 450 micromhos Sept. 21, 1941.
WATER TEMPERATURES: Maximum, 34.0°C June 25, 1964; minimum, 3.0°C Jan. 13, 1963.
HARDNESS: Maximum, 3,110 mg/L June 7, 1966; minimum, 235 mg/L Oct. 21, 1969.
DISSOLVED SOLIDS: Maximum, 18,700 mg/L June 7, 1966; minimum, 335 mg/L Sept. 26, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 8,540 micromhos May 9; minimum daily, 2,460 micromhos Nov. 7.
WATER TEMPERATURES: Maximum, 33.0°C July 26; minimum, 5.0°C Jan. 2, Feb. 1.
HARDNESS: Maximum, 2,700 mg/L Nov. 4; minimum, 800 mg/L Aug. 1-31.
DISSOLVED SOLIDS: Maximum, 5,390 mg/L May 1-27; minimum, 1,890 mg/L Aug. 1-31.

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW (CFS) (00060)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
OCT											
01...	73	2990	7.7	830	680	210	73	360	5.5	12	150
02-04	32	4300	7.8	1100	990	280	100	560	7.3	18	120
05-23	18	7170	7.8	1900	1700	450	180	990	10	30	130
24-31	26	6840	7.9	1800	1700	430	180	900	9.2	27	94
NOV											
01-03	20	6930	7.9	1700	1600	380	190	920	9.6	26	150
04...	279	6980	7.8	--	--	--	--	--	--	23	140
05-07	350	2980	8.1	1100	950	270	98	280	3.7	7.1	130
08-30	45	4440	7.8	1200	1100	300	110	530	6.7	20	120
DEC											
01-31	52	5540	7.6	1700	1500	430	140	640	6.9	18	130
JAN											
01-31	54	5570	7.8	1800	1600	450	160	650	6.7	15	150
FEB											
01-28	60	5450	7.5	1700	1600	410	160	620	6.6	15	120
MAR											
01-31	43	5990	7.3	1800	1700	450	170	720	7.3	16	120
APR											
01-30	30	6480	8.2	1900	1800	480	180	800	7.9	23	110
MAY											
01-27	25	7230	7.6	2400	2200	530	250	980	8.8	24	140
28-31	92	5420	7.4	1800	1700	440	170	600	6.2	13	110
JUN											
01-17	77	4430	7.6	1200	1100	320	93	550	7.0	15	99
18-19	377	3280	7.4	1100	950	270	94	330	4.4	8.5	110
20-21	129	4340	7.5	1400	1300	350	130	470	5.4	11	120
22-30	33	6200	7.5	1800	1600	440	160	750	7.8	21	110
JUL											
01-18	29	6640	7.6	1900	1800	450	180	800	8.1	19	110
19-23	158	4470	7.2	1400	1300	360	110	480	5.7	9.7	90
24-31	39	5480	7.4	1100	1000	200	150	650	8.5	15	99
AUG											
01-31	57	5750	7.6	800	710	--	--	700	11	15	94
SEP											
01-30	53	6030	7.7	1800	1700	440	180	670	6.8	17	120
WTD. AVG.	--	5390	7.6	1530	1410	396	148	633	7.2	16	118
TIME WTD. AVG.	52	5840	7.7	1650	1520	422	163	708	7.7	18	120
TOT. LOAD (TONS)	--	--	--	--	--	18100	6780	32000	--	831	6060

08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
OCT											
01...	590	610	.4	12	--	1970	2.68	388	1.8	--	--
02-04	770	970	.5	14	--	2790	3.79	246	2.2	--	--
05-23	1300	1800	.7	16	--	4860	6.61	243	2.8	--	--
24-31	1600	--	.7	15	--	--	--	236	2.3	--	--
NOV											
01-03	1400	1600	.7	13	--	4630	6.30	259	1.9	--	--
04...	1600	1500	.7	--	--	--	--	--	2.1	--	--
05-07	820	460	.5	9.9	--	2030	2.76	1920	1.4	--	--
08-30	890	940	.5	10	--	2880	3.92	350	1.4	--	--
DEC											
01-31	1300	1100	.6	13	--	3730	5.07	524	1.8	--	--
JAN											
01-31	1400	1100	.8	9.0	--	3880	5.28	566	1.9	--	--
FEB											
01-28	1400	1100	.8	7.1	--	3790	5.15	616	1.4	--	--
MAR											
01-31	1500	1200	.8	7.3	4400	4140	5.63	481	--	410	20
APR											
01-30	1700	1400	.8	5.6	--	4660	6.34	377	.66	--	--
MAY											
01-27	1900	1600	.9	16	--	5390	7.33	364	1.2	--	--
28-31	1500	1000	.8	8.2	--	3800	5.17	944	.91	--	--
JUN											
01-17	1000	870	.6	7.3	--	2920	3.97	607	1.0	--	--
18-19	860	560	.5	6.3	--	2200	2.99	2240	.95	--	--
20-21	1200	780	.7	10	--	3030	4.12	1060	1.2	--	--
22-30	1500	1300	.8	12	--	4250	5.78	379	1.1	--	--
JUL											
01-18	1400	1200	.9	17	--	4140	5.63	324	1.2	--	--
19-23	1300	810	.7	13	--	3140	4.27	1340	1.2	--	--
24-31	1200	1000	.8	13	--	3290	4.47	346	1.0	--	--
AUG											
01-31	--	1100	.8	14	--	1890	2.57	291	1.3	--	--
SEP											
01-30	1500	1200	.8	16	4440	4100	5.58	587	--	390	30
WTD. AVG.	1310	1070	.7	11	--	3470	4.72	--	1.4	--	--
TIME WTD. AVG.	1400	1190	.7	11	--	3810	5.18	--	1.5	--	--
TOT. LOAD (TONS)	61000	54200	37	547	--	173000	--	--	61	--	--

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	TUR- BID- ITY (NTU) (00076)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)
OCT										
27...	1300	22	7100	7.9	17.0	16.0	2.4	9.7	1700	--
NOV										
14...	1400	31	5000	7.8	18.0	16.0	7.0	10.4	1200	--
DEC										
11...	1400	51	5800	8.4	9.0	6.5	1.1	15.2	1600	1500
JAN										
24...	1500	52	6000	9.0	12.5	8.0	17	20.0	1700	1600
FEB										
21...	1430	60	5200	8.7	19.0	12.0	5.1	16.4	1600	1500
MAR										
21...	1200	36	6400	7.8	22.0	17.5	6.3	7.5	--	--
APR										
17...	1200	17	6800	8.5	24.5	22.0	1.0	17.6	--	--
MAY										
16...	1430	22	7600	8.1	32.5	23.0	6.8	9.4	--	--
JUN										
21...	1200	83	4180	8.2	32.0	27.5	11	9.5	--	--
JUL										
18...	1130	40	6600	8.2	29.5	28.5	2.0	7.8	--	--
AUG										
09...	1125	40	6490	8.1	26.5	28.5	6.4	9.4	--	--
SEP										
13...	1215	45	6000	8.2	29.0	25.0	5.7	9.8	--	--

08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)
OCT 27...	400	160	910	9.7	23	150	1400	1400	.7
NOV 14...	310	110	620	7.7	18	120	1000	1100	.5
DEC 11...	390	150	680	7.4	17	130	1400	1100	.6
JAN 24...	420	150	680	7.3	15	87	1400	1100	.6
FEB 21...	400	140	650	7.1	15	110	1200	1100	.6
MAR 21...	--	--	--	--	--	--	--	--	--
APR 17...	--	--	--	--	--	--	--	--	--
MAY 16...	--	--	--	--	--	--	--	--	--
JUN 21...	--	--	--	--	--	--	--	--	--
JUL 18...	--	--	--	--	--	--	--	--	--
AUG 09...	--	--	--	--	--	--	--	--	--
SEP 13...	--	--	--	--	--	--	--	--	--

DATE	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)
OCT 27...	14	--	1.5	1.6	.00	1.3	2.8	.030	.00
NOV 14...	15	--	1.5	1.6	.01	.94	2.5	.080	.00
DEC 11...	7.9	3830	1.1	1.3	.01	1.6	2.7	.100	.00
JAN 24...	4.0	3820	.33	.32	.70	1.3	2.3	.120	.00
FEB 21...	6.3	3580	.44	.48	.09	1.1	1.6	.050	.01
MAR 21...	--	--	.68	.66	.57	.53	1.8	.090	.03
APR 17...	--	--	.53	.44	.08	1.2	1.8	.040	.01
MAY 16...	--	--	.49	.45	.19	.52	1.2	.040	.00
JUN 21...	--	--	.02	.00	.19	1.2	1.4	.180	.04
JUL 18...	--	--	.35	.33	.40	.00	.37	.060	.01
AUG 09...	--	--	.76	.89	.06	1.0	1.9	.050	.00
SEP 13...	--	--	1.2	.99	.12	.75	2.1	.050	.01

08406500 PECOS RIVER NEAR MALAGA, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2990	6970	4960	5370	5710	5630	5880	7050	4700	6600	6070	6020
2	3860	6980	4880	5260	5750	5840	5980	6820	4000	6800	6110	5910
3	4340	6980	4830	5260	5750	5900	6170	6860	4270	6660	6080	5800
4	4780	6980	5110	5350	5710	5860	6210	6890	4390	6720	5900	5900
5	5320	3240	5160	5510	5710	5880	6230	6980	4500	6580	6050	5920
6	5620	2580	5190	5810	5560	5920	6330	7170	4490	6540	6190	5710
7	5900	2460	5200	5640	5450	5930	6280	7320	4480	6550	6290	5780
8	6350	2820	5260	5820	5420	5960	6330	7540	4660	6590	6230	6080
9	6690	3300	5490	5790	5450	6010	6290	8540	4530	6700	6160	6220
10	6880	3690	5620	5880	5470	6000	6260	8140	3960	6700	6330	6310
11	7060	4000	5610	5850	5500	5970	6260	7480	4320	6930	6220	6380
12	7200	4310	5660	5850	5530	6030	6200	7170	4560	7090	6540	6260
13	7350	4570	5750	5870	5530	6050	6290	7320	4740	7050	6630	6390
14	7450	4750	5660	5850	5560	6050	6530	7480	4840	7060	6610	6160
15	7550	5060	5730	5740	5680	6100	6600	7540	5000	7130	6300	6010
16	7450	4920	5670	5510	5750	6210	6640	7480	5080	6960	6180	5860
17	7350	5160	5730	5380	5420	6110	7000	7220	5270	6370	6270	5840
18	7410	5090	5710	5400	5100	6080	7120	7290	2860	6210	6330	5540
19	7500	5130	5790	5290	5000	6090	6790	6650	3850	5470	6120	5800
20	7710	5140	5900	5340	5000	6080	6150	6580	4180	4180	5160	5820
21	8060	4790	5900	5200	5020	6120	6380	6750	4650	4180	5100	5770
22	8240	4660	5940	5380	5100	6160	6530	7070	5010	4420	5320	5640
23	7940	4470	6000	5660	5050	6160	6800	7270	5520	4710	5190	5720
24	7710	4500	5780	5510	5050	6130	6870	7380	5830	4960	5580	5830
25	7200	4470	5600	5610	5070	6180	6860	7320	6270	5110	5680	6000
26	6160	4530	5640	5710	5070	6330	6910	7270	6430	5380	6030	6100
27	6210	4680	5700	5650	5100	6350	6890	7220	6480	5530	5500	6490
28	6390	4720	5640	5620	5620	6190	7120	5200	6550	5650	5280	6350
29	6510	4970	5580	5660	---	5510	7230	5360	6450	5860	5590	6650
30	6670	4970	5650	5680	---	5620	7260	5710	6480	5970	5810	6420
31	6790	---	5600	5690	---	5830	---	5940	---	6040	5970	---
MEAN	6600	4700	5550	5590	5400	6010	6550	7030	4950	6090	5960	6020

WTR YR 1979 MEAN 5880 MAX 8540 MIN 2460

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.0	17.0	12.0	7.0	5.0	12.0	16.5	20.0	22.0	28.0	30.0	30.0
2	24.0	19.0	12.5	5.0	7.0	13.0	16.0	20.0	21.5	32.0	30.0	27.0
3	22.0	20.0	12.0	5.5	9.0	12.0	18.0	19.0	22.0	29.0	27.5	29.0
4	21.5	18.0	10.0	7.0	8.0	12.0	17.0	22.0	24.0	30.0	30.0	25.0
5	23.0	17.5	13.0	7.0	6.5	12.0	19.0	21.5	25.0	29.0	30.0	27.0
6	23.0	17.5	10.0	6.0	7.0	12.0	20.0	20.0	27.5	28.0	30.0	28.0
7	20.0	15.0	8.5	6.0	7.5	12.0	22.0	21.5	29.0	28.0	29.0	28.0
8	20.0	17.0	6.5	6.5	8.5	13.0	16.5	23.0	28.5	28.0	30.0	26.0
9	21.0	17.0	6.0	6.0	9.0	14.0	20.0	24.0	27.5	32.5	30.0	25.0
10	20.0	17.5	7.0	6.0	9.0	13.0	18.0	23.0	24.0	28.0	29.0	27.0
11	23.0	15.5	6.0	7.0	10.0	12.0	15.0	19.0	26.0	29.0	27.0	25.5
12	24.0	14.0	6.0	7.5	12.5	14.0	15.0	19.0	26.0	28.0	25.5	25.0
13	20.0	14.0	7.0	8.5	11.0	14.5	15.0	20.0	26.0	27.0	26.0	24.0
14	18.0	16.0	9.0	6.5	14.0	15.0	19.0	24.0	26.0	28.0	27.0	22.0
15	18.0	14.0	8.0	6.0	15.0	14.0	17.5	23.0	26.0	28.0	25.0	22.0
16	19.0	13.5	8.5	7.5	12.0	14.0	20.0	23.0	27.0	31.0	25.0	20.0
17	22.0	12.5	9.0	8.0	10.0	14.0	24.0	25.0	26.0	31.0	24.0	19.0
18	19.0	12.5	8.5	9.5	10.5	15.0	24.0	23.0	27.0	30.0	23.0	20.0
19	18.0	13.0	11.0	10.0	12.0	15.0	23.0	24.5	26.0	28.0	23.0	22.0
20	19.0	14.0	11.0	8.5	11.0	15.5	20.0	23.0	28.0	25.0	25.5	22.0
21	19.0	13.5	9.5	8.5	13.0	15.0	21.0	25.0	29.5	25.5	25.0	22.0
22	19.0	13.0	8.5	9.0	14.5	14.5	21.0	24.0	28.5	25.5	27.5	25.0
23	15.5	13.5	9.5	8.5	14.5	17.0	24.0	25.0	30.5	30.5	26.0	21.5
24	16.0	14.0	9.0	8.0	12.0	15.0	24.0	25.0	26.0	31.0	27.0	25.0
25	15.0	15.5	9.0	10.0	11.5	14.5	24.0	22.5	30.0	32.0	26.0	25.0
26	16.0	14.0	9.0	9.0	11.0	20.0	22.0	23.0	30.5	33.0	25.5	25.0
27	15.5	13.5	8.5	8.0	12.0	17.0	21.0	25.0	30.0	32.0	26.5	24.5
28	16.5	11.0	8.0	7.5	11.0	18.0	19.0	25.0	30.5	31.0	25.0	22.0
29	16.5	11.0	9.5	9.0	---	17.0	20.0	24.0	31.0	31.0	25.5	21.0
30	17.0	13.5	10.5	10.0	---	16.5	19.0	26.0	30.0	31.5	26.0	21.5
31	16.5	---	8.0	6.5	---	17.0	---	24.0	---	27.0	25.0	---
MEAN	19.5	15.0	9.0	7.5	10.5	14.5	19.5	23.0	27.0	29.5	27.0	24.0

WTR YR 1979 MEAN 19.0 MAX 33.0 MIN 5.0

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM

LOCATION.--Lat 32°11'19", long 103°58'43", in SW¼SW¼NW¼ sec.27, T.24 S., R.29 E., Eddy County, Hydrologic Unit 13060011, on right bank 550 ft (168 m) upstream from Pierce Canyon Crossing, and 6.0 mi (9.7 km) southeast of Malaga, and at mile 425.7 (685.0 km).

DRAINAGE AREA.--19,260 mi^2 (49,880 km^2), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--July 1938 to September 1941, August 1951 to current year.

REVISED RECORDS.--WSP 898: 1938(M). WSP 1712: 1959.

GAGE.--Water-stage recorder. Datum of gage is 2,889.18 ft (880.622 m) National Geodetic Vertical Datum of 1929. July 1938 to September 1941 at datum 1.19 ft (0.363 m) higher.

REMARKS.--Water-discharge records good. Flow regulated by storage in Lake Sumner, Lake McMillan, and Lake Avalon (stations 08384000, 08400500, 08403800), and by several small diversion dams that divert for power or irrigation. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (820 km^2), 1959 determination.

AVERAGE DISCHARGE.--31 years (1939-41, 1952-79), 141 ft^3/s (3.993 m^3/s), 102,200 acre-ft/yr (126 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 31.6 ft (9.63 m) from floodmarks, Aug.23, 1966, (discharge not determined); minimum discharge, 0.54 ft^3/s (0.015 m^3/s) May 30, 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge not determined, maximum gage height 4.90 ft (1.494 m) Nov. 5; minimum, 3.8 ft^3/s (0.108 m^3/s) Sept. 11.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	112	21	64	67	60	51	42	29	145	26	30	57
2	65	22	63	68	60	46	39	32	351	27	37	56
3	43	22	58	67	61	44	35	31	135	26	41	60
4	30	197	56	64	62	46	33	24	75	26	41	57
5	27	769	56	60	69	45	33	21	56	26	42	52
6	23	348	55	56	76	43	33	17	47	26	37	60
7	19	172	56	54	82	43	35	15	48	26	35	62
8	17	105	57	54	79	43	34	12	44	25	38	48
9	17	74	55	54	74	44	35	14	58	24	42	44
10	16	58	57	54	68	44	35	20	86	22	37	33
11	15	49	57	54	66	44	35	22	62	18	34	31
12	15	43	57	55	65	44	38	21	47	17	38	83
13	15	40	58	56	63	44	33	19	44	16	37	31
14	15	39	58	55	62	43	27	19	43	16	40	30
15	15	38	61	60	55	44	21	21	41	19	52	52
16	14	39	59	62	55	46	17	21	40	24	61	57
17	14	39	55	63	58	45	15	27	38	35	55	62
18	13	40	51	66	59	42	14	32	250	46	52	65
19	13	39	51	68	61	39	44	53	439	55	62	71
20	13	42	51	69	64	40	49	38	248	231	72	60
21	14	47	51	73	65	41	37	25	116	301	84	63
22	15	51	54	64	65	31	31	21	68	158	84	61
23	19	55	58	56	63	26	27	21	48	83	97	58
24	22	57	58	57	64	40	28	24	36	57	94	57
25	44	58	60	56	62	35	28	21	31	48	68	53
26	47	58	60	56	61	33	25	23	31	45	56	48
27	34	57	59	58	59	33	26	27	25	41	84	43
28	26	55	60	59	49	47	24	270	20	42	246	42
29	22	60	60	58	---	87	25	107	26	43	102	41
30	22	63	61	58	---	74	26	52	25	30	66	44
31	21	---	66	59	---	50	---	37	---	21	57	---
TOTAL	797	2757	1782	1860	1787	1377	924	1116	2723	1600	1921	1581
MEAN	25.7	91.9	57.5	60.0	63.8	44.4	30.8	36.0	90.8	51.6	62.0	52.7
MAX	112	769	66	73	82	87	49	270	439	301	246	83
MIN	13	21	51	54	49	26	14	12	20	16	30	30
AC-FT	1580	5470	3530	3690	3540	2730	1830	2210	5400	3170	3810	3140

WTR YR 1979 TOTAL 20225 MEAN 55.4 MAX 769 MIN 12 AC-FT 40120

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 0.2 mi (0.3 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1938-41, 1952 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: March 1938 to September 1941, October 1951 to current year.
WATER TEMPERATURES: October 1952 to current year.
HARDNESS: March 1938 to September 1941, October 1951 to current year.
DISSOLVED SOLIDS: March 1938 to September 1941, October 1951 to current year.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of heavy local rains.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 66,000 micromhos Aug. 1, 2, 1966; minimum daily, 433 micromhos Sept. 21, 1941.
WATER TEMPERATURES: Maximum 35.0°C July 6, 1968; minimum, 1.5°C Jan. 10, 1977.
HARDNESS: Maximum, 4,850 mg/L Aug. 16, 1969; minimum, 202 mg/L Sept. 21, 1941.
DISSOLVED SOLIDS: Maximum, 40,900 mg/L Aug. 1-7, 1966; minimum, 280 mg/L Sept. 21, 1941.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 18,900 micromhos Oct. 22; minimum daily, 3,590 micromhos Nov. 6.
WATER TEMPERATURES: Maximum, 32.0°C July 16, 25; minimum, 3.5°C Jan. 2.
HARDNESS: Maximum, 2,300 mg/L May 1-28; minimum 760 mg/L Oct. 1..
DISSOLVED SOLIDS: Maximum, 9,700 mg/L May 1-28; minimum, 2,570 mg/L Nov. 6-9.

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAM-FLOW (CFS) (00060)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
OCT											
01...	112	4810	7.7	760	610	180	75	720	11	32	150
02-05	41	7230	7.8	1100	890	240	110	1200	16	53	160
06-14	17	13600	7.8	1700	1500	370	190	2500	26	100	160
15-25	18	17500	7.7	2200	2100	450	260	3200	30	140	120
26-31	29	13500	7.9	2000	1900	440	230	2300	22	93	130
NOV											
01-04	66	14300	8.1	2000	1900	420	240	2500	24	120	150
05...	719	6520	7.7	1400	1200	300	150	980	12	31	120
06-09	175	3900	7.8	1100	990	270	110	460	6.0	13	140
10-14	46	6460	7.9	960	840	220	100	1100	15	51	120
15-30	50	8730	8.0	1400	1300	320	150	1500	17	70	130
DEC											
01-31	58	8600	7.5	1600	1400	340	170	1300	14	51	130
JAN											
01-31	60	9020	7.8	2000	1800	470	190	1500	15	46	130
FEB											
01-28	64	9120	7.4	1800	1700	410	190	1400	14	43	110
MAR											
01-02	48	8630	7.7	1800	1700	420	180	1300	13	47	110
03-23	42	10300	7.6	1900	1800	430	210	1800	18	60	120
24-28	38	14500	7.5	2000	1900	490	190	2600	25	10	120
29-31	70	11400	7.5	2000	1900	460	210	1900	18	67	120
APR											
01-13	35	10800	8.6	1900	1900	450	200	1800	18	64	81
14-18	19	11600	8.3	2000	1900	460	210	1900	18	71	98
19-30	31	12500	8.1	2100	2000	470	220	2200	21	80	100
MAY											
01-28	33	13600	8.2	2300	2200	540	240	2500	23	83	100
29-31	65	8390	8.0	2000	1900	490	200	1100	11	39	120
JUN											
01-02	248	8660	7.7	1500	1400	410	110	1400	16	50	100
03-05	89	6100	7.7	1400	1300	360	130	810	9.3	27	94
06-12	56	7670	7.6	1400	1300	330	130	1300	15	44	87
13-17	41	8290	7.6	1400	1300	310	150	1400	16	52	88
18...	250	9990	7.6	1500	1400	330	160	1800	20	39	89
19-22	218	5340	7.7	1100	980	280	96	800	11	29	110
23-25	38	6920	7.6	1500	1400	370	150	1100	12	35	120
26-30	25	9930	7.6	1700	1600	400	180	1700	18	53	99
JUL											
01-19	26	12500	7.6	2100	2000	450	230	2100	20	75	87

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT											
01...	510	1200	.3	12	--	2830	3.85	856	1.8	--	--
02-05	780	1900	.4	12	--	4400	5.98	487	2.1	--	--
06-14	1400	4200	.5	14	--	--	--	--	2.5	--	--
15-25	1900	5500	.7	14	--	--	--	--	2.7	--	--
26-31	1900	3800	.8	15	--	--	--	--	2.7	--	--
NOV											
01-04	1900	4000	.7	13	--	9290	12.6	1660	1.6	--	--
05...	1000	1700	.5	9.0	--	4250	5.78	8250	1.1	--	--
06-09	870	740	.5	11	--	2570	3.50	1210	1.7	--	--
10-14	850	1700	.4	9.4	--	4110	5.59	510	1.2	--	--
15-30	1000	2500	.5	10	--	5630	7.66	760	1.4	--	--
DEC											
01-31	1400	2000	.6	8.9	--	5350	7.28	838	--	--	--
JAN											
01-31	1500	2400	.7	7.9	--	6200	8.43	1000	1.6	--	--
FEB											
01-28	1700	2300	.7	5.1	--	6120	8.32	1060	.93	--	--
MAR											
01-02	1500	2200	.7	6.3	--	5720	7.78	741	.82	--	--
03-23	1700	2800	.7	6.1	--	7080	9.63	816	.96	--	--
24-28	1800	4100	.8	7.3	--	9270	12.6	951	.88	--	--
29-31	1700	3000	.8	8.1	--	7420	10.1	1400	.87	--	--
APR											
01-13	1900	2900	.7	1.6	--	7370	10.0	696	.17	--	--
14-18	1800	3100	.8	2.4	--	7600	10.3	390	.23	--	--
19-30	2000	3400	.8	5.5	--	8440	11.5	706	.30	--	--
MAY											
01-28	2100	3600	.8	7.1	9700	9130	12.4	813	--	850	20
29-31	1800	1900	.8	10	5990	5610	7.63	985	--	500	30
JUN											
01-02	1300	2100	.7	8.4	--	5450	7.41	3650	1.3	--	--
03-05	1100	1200	.6	5.5	--	3690	5.02	887	.97	--	--
06-12	1200	1800	.6	6.3	--	4870	6.62	736	.63	--	--
13-17	1100	2100	.6	6.9	--	5180	7.04	573	.58	--	--
18...	1200	2500	.6	7.4	--	6090	8.28	4110	.74	--	--
19-22	970	1200	.6	5.8	--	3450	4.69	2030	.87	--	--
23-25	1300	1600	.7	7.3	--	4640	6.31	476	.65	--	--
26-30	1600	2600	.7	7.3	--	6600	8.98	446	.55	--	--
JUL											
01-19	2000	3600	.8	13	--	8520	11.6	598	.62	--	--

DATE	STREAM-FLOW (CFS) (00060)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)
JUL											
20...	231	10000	7.5	1800	1700	390	190	1600	17	44	100
21-26	115	6750	7.5	1400	1300	330	130	850	10	28	83
27-31	35	8860	7.4	1600	1500	360	170	1400	15	45	83
AUG											
01-22	48	10700	7.4	1900	1900	500	170	1700	17	53	99
23-26	79	8160	7.2	1800	1700	430	170	1200	12	32	100
27-28	165	10200	7.4	1700	1600	420	160	1500	16	49	100
29-31	75	7370	7.4	1700	1600	420	170	950	9.9	24	110
SEP											
01-30	53	9210	7.6	1900	1800	440	200	1400	14	48	110
WTD. AVG.	--	9200	7.7	1720	1600	399	175	1480	15	51	113
TIME WTD. AVG.	55	10200	7.7	1820	1710	419	189	1700	17	59	112
TOT. LOAD (TONS)	--	--	--	--	--	21800	9520	80900	--	2760	6170

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	SOLIDS, DIS- SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS- SOLVED (TONS PER DAY) (70302)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
JUL											
20...	1600	2700	.8	16	--	6610	8.99	4120	1.1	--	--
21-26	1300	1500	.7	12	--	4200	5.71	1300	.90	--	--
27-31	1400	2200	.7	12	--	5640	7.67	533	.64	--	--
AUG											
01-22	1900	2800	.9	15	--	7200	9.79	933	.91	--	--
23-26	1800	1900	.8	16	--	5610	7.63	1200	.94	--	--
27-28	1600	2500	.8	16	--	6310	8.58	2810	.98	--	--
29-31	1500	1600	.8	15	--	4750	6.46	962	.84	--	--
SEP											
01-30	1800	2300	.8	16	6250	6270	8.53	897	--	550	20
WTD. AVG.	1520	2360	.7	9.5	--	5970	8.11	--	--	--	--
TIME WTD. AVG.	1630	2710	.7	9.5	--	6530	8.88	--	--	--	--
TOT. LOAD (TONS)	82700	129000	37	520	--	317000	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4810	14400	8760	8690	8960	8590	9300	13100	8900	11400	10200	8070
2	6290	14300	8400	8810	9450	8680	9300	13000	8600	11900	11500	8250
3	7140	14300	8610	8360	9540	10200	9800	12900	5990	12000	11400	8770
4	8140	14300	8500	8440	9720	9870	10200	13700	6030	12100	10600	9160
5	9460	6520	8420	8550	9630	9290	10700	13500	6510	12000	10600	9020
6	11400	3590	8550	8730	9810	9390	10300	13300	7170	12300	10600	9090
7	12200	3850	8800	8530	10100	9920	11000	13200	7550	12000	10600	8600
8	12800	4260	8070	9020	9540	9900	11100	13500	7550	12000	10700	8750
9	13900	4760	8940	8850	9120	10900	11200	14600	8030	12400	10800	8830
10	14100	5250	8270	8940	8390	12200	11200	15900	8390	12200	10600	9230
11	14500	6050	8460	9690	8810	10000	11400	16100	7070	12300	10500	9230
12	15300	6520	8280	9290	8740	10100	12500	15900	7330	12300	10900	10500
13	16400	7230	8610	11100	8890	10000	12000	14400	7440	12900	11000	9110
14	16600	7700	11100	10200	8970	12700	10900	14200	7730	13200	10900	10800
15	17500	8290	8730	9090	9290	12500	10600	14900	8250	13300	11000	11000
16	17400	8770	8720	9170	9720	11100	11300	15300	8910	13500	10900	10900
17	17200	8770	8940	9290	8800	9950	13000	14900	9320	13400	10500	9690
18	17100	8990	8590	9490	8670	10300	13200	13700	9990	13600	10200	9430
19	17400	9150	9140	9330	9450	12000	13500	13300	5660	12300	10000	9430
20	17700	9390	9360	10300	8890	11300	13600	12700	4880	10000	10000	8860
21	18400	9550	9970	8670	8970	10700	12400	12600	5180	7040	9910	9060
22	18900	9470	8890	8200	8390	11500	11600	12400	5490	6000	9460	8790
23	18500	8920	9050	8850	8740	12700	11700	12500	6420	5830	8400	8770
24	18200	8920	9530	8210	8670	15400	11900	12800	6680	6400	7950	8880
25	17000	8630	8840	8270	9630	14600	12100	13000	7950	7180	7780	8970
26	14200	8430	8970	8280	8370	14400	12000	12600	8740	7620	7780	9040
27	13500	8770	8930	9380	8510	14400	12000	12600	9410	8180	9540	9350
28	12700	8170	8800	8690	11000	13600	12300	13600	9780	8680	10500	9480
29	13300	7870	8740	8620	---	12300	12500	8160	10500	9180	7140	9510
30	13800	8050	9300	9310	---	11800	13000	8440	11500	9110	7190	9940
31	13700	---	9010	9400	---	9140	---	8990	---	9410	7610	---
MEAN	14200	8440	8880	9020	9170	11300	11600	13200	7770	10700	9900	9280

WTR YR 1979 MEAN 10300 MAX 18900 MIN 3590

08407000 PECOS RIVER AT PIERCE CANYON CROSSING, NEAR MALAGA, NM -- Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.5	17.5	11.0	5.0	4.5	12.0	17.0	20.0	24.0	26.5	31.0	30.0
2	24.0	17.5	12.5	3.5	6.0	12.5	17.0	21.0	22.0	30.5	30.5	28.0
3	23.0	17.5	12.0	4.0	8.0	12.0	18.0	19.5	22.0	29.0	28.5	30.0
4	22.5	19.0	10.0	5.5	7.0	12.0	17.0	22.0	25.0	30.0	30.0	28.0
5	22.0	18.0	12.0	6.0	7.0	12.0	17.5	20.5	25.0	30.0	30.0	26.5
6	22.0	17.0	12.0	5.0	5.0	12.0	18.5	21.5	27.5	30.0	29.0	28.0
7	22.0	15.5	7.5	5.0	7.0	12.5	24.0	21.5	29.0	30.0	29.5	28.0
8	21.0	17.0	5.0	5.0	8.0	13.0	17.0	23.0	27.0	26.0	29.0	27.0
9	22.0	17.0	4.5	4.0	9.0	14.0	20.0	24.5	27.5	31.5	29.0	26.0
10	22.0	14.5	6.0	5.0	9.0	13.0	19.0	23.0	24.5	30.0	28.0	27.0
11	22.0	15.5	4.5	5.5	9.0	11.0	15.5	22.0	25.0	29.5	27.0	26.0
12	21.5	14.0	4.0	7.0	13.0	14.0	15.0	20.0	26.0	29.0	27.0	25.0
13	20.5	14.0	6.0	8.0	11.0	14.0	15.0	20.5	26.0	29.5	26.5	25.0
14	19.0	15.0	6.5	6.5	14.0	15.0	19.0	23.0	27.0	30.0	27.0	23.0
15	19.0	14.0	6.5	5.0	14.0	14.0	17.5	23.0	26.0	28.0	28.0	22.0
16	20.0	13.0	8.0	6.0	12.0	13.5	19.5	23.0	26.0	32.0	26.0	20.0
17	21.0	12.0	8.5	7.0	9.5	13.0	22.0	23.5	26.0	31.0	25.0	19.5
18	20.0	12.5	7.5	8.5	10.0	14.5	24.0	23.0	27.0	30.0	24.5	20.0
19	19.5	13.0	10.5	10.0	11.0	15.0	24.5	25.5	26.0	26.0	24.5	22.0
20	20.0	14.0	11.0	8.5	11.0	16.0	22.0	24.5	28.0	24.0	27.0	22.0
21	20.0	13.5	9.0	8.0	12.0	15.5	22.0	25.0	29.0	25.0	26.0	22.0
22	20.0	13.0	8.0	8.5	13.0	15.0	22.0	24.0	28.0	27.0	27.0	25.0
23	17.0	13.0	9.0	8.0	14.5	14.0	24.0	25.0	29.5	31.0	27.0	22.0
24	16.0	14.0	9.0	6.0	12.0	16.0	24.5	24.5	27.5	31.0	27.0	25.0
25	14.5	15.5	8.0	8.0	11.5	15.0	25.0	23.0	29.0	32.0	26.0	24.0
26	16.0	14.5	8.0	9.0	11.0	20.0	23.0	23.0	29.0	31.0	26.0	25.0
27	14.5	13.0	8.0	8.0	11.0	16.0	21.5	26.0	29.0	31.5	27.0	25.0
28	15.0	11.0	7.5	6.0	11.0	18.0	19.0	26.0	29.5	28.0	26.0	22.5
29	16.5	10.0	9.0	7.0	---	17.0	21.0	25.0	30.0	31.5	28.0	22.0
30	17.0	11.0	10.0	9.5	---	17.0	19.5	26.0	30.0	30.5	26.0	22.5
31	17.5	---	7.5	6.0	---	17.0	---	25.0	---	28.5	26.0	---
MEAN	19.5	14.5	8.5	6.5	10.0	14.5	20.0	23.0	27.0	29.5	27.5	24.5

WTR YR 1979 MEAN 19.0 MAX 32.0 MIN 3.5

08407500 PECOS RIVER AT RED BLUFF, NM
(National stream-quality accounting network station)

LOCATION.--Lat 32°04'30", long 104°02'21", in SW¼NE¼ sec.1, T.26 S., R.28 E., Eddy County, Hydrologic Unit 13060011, on right bank at Red Bluff, 0.2 mi (0.3 km) downstream from Red Bluff Draw, 1.6 mi (2.6 km) northwest of the El Paso Natural Gas (Pecos River) compressor station, 5.2 mi (8.4 km) north of the New Mexico-Texas state line, 5.5 mi (8.8 km) upstream from Delaware River, and at mile 411.2 (661.6 km). Water-quality sampling site 1.4 (2.3 km) downstream at mile 409.8 (659.4 km).

DRAINAGE AREA.--19,540 mi² (50,600 km²), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1937 to current year.

GAGE.--Water-stage recorder. Datum of gage is 2,850.05 ft (868.695 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Water-discharge records good. Flow regulated by storage in Lake Sumner, Lake McMillan, and Lake Avalon (stations 08384000, 08400500, 08403800), and by several small diversion dams that divert for power or irrigation. Diversions and ground-water withdrawals above station for irrigation of about 202,000 acres (820 km²), 1959 determination.

AVERAGE DISCHARGE.--42 years, (1938-79), 174 ft³/s (4.928 m³/s), 126,100 acre-ft/yr (155 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 111,000 ft³/s (3,140 m³/s) Aug. 23, 1966, gage height, 33.32 ft (10.156 m), from rating curve extended above 30,000 ft³/s (850 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.19 ft³/s (0.005 m³/s) Aug. 1, 1966.

The flood of Aug. 23, 1966, exceeded all floods at this location.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in October 1904 reached a stage of 28.0 ft (8.53 m), from information by Panhandle and Santa Fe Railway Co. (For dates of other historical floods see stations 08405000, 08406500.).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,040 ft³/s (29.5 m³/s) Aug. 20, gage height, 7.08 ft. (2.158 m), no peak above base of 1,800 ft³/s (51 m³/s); minimum, 1.2 ft³/s (0.034 m³/s) June 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	154	30	65	65	58	57	51	30	99	24	26	58
2	112	30	65	66	58	52	44	30	195	28	30	56
3	86	37	63	66	59	51	40	32	125	28	38	58
4	66	381	58	63	60	51	36	28	70	28	36	60
5	55	774	57	59	70	53	37	24	52	34	38	56
6	49	456	57	54	73	50	37	20	40	34	38	56
7	43	237	57	53	78	50	37	17	37	32	32	64
8	39	147	57	52	80	51	38	14	35	32	31	59
9	36	105	56	53	73	52	39	12	80	32	35	51
10	34	76	58	53	70	53	38	14	50	31	35	49
11	31	58	59	53	66	53	36	20	53	28	31	32
12	31	52	58	53	65	53	40	22	38	23	32	53
13	30	46	59	53	64	53	38	21	28	22	36	63
14	28	43	58	52	64	52	32	19	20	21	38	27
15	29	41	60	56	58	53	26	20	11	21	40	39
16	29	42	60	60	56	57	20	21	6.2	24	54	59
17	26	41	56	63	66	58	19	26	3.2	30	57	67
18	26	41	52	65	66	55	16	28	24	50	52	69
19	25	42	51	65	69	50	23	40	273	136	97	78
20	24	42	50	66	70	52	52	46	189	182	242	73
21	24	47	50	71	69	54	43	33	108	193	108	70
22	25	51	52	64	69	52	36	26	69	167	80	71
23	33	55	56	56	67	32	31	21	49	111	75	71
24	39	58	57	57	69	47	29	22	37	81	85	70
25	42	59	58	56	69	51	31	25	29	65	73	69
26	64	59	58	54	66	46	30	25	25	59	59	63
27	56	58	57	58	64	47	29	29	26	54	75	59
28	43	57	58	58	55	50	28	110	19	50	131	53
29	36	59	59	56	---	82	28	120	17	51	122	54
30	34	64	60	57	---	91	28	63	23	49	76	54
31	30	---	65	57	---	63	---	91	---	29	59	---
TOTAL	1379	3288	1786	1814	1851	1671	1012	1049	1830.4	1749	1961	1761
MEAN	44.5	110	57.6	58.5	66.1	53.9	33.7	33.8	61.0	56.4	63.3	58.7
MAX	154	774	65	71	80	91	52	120	273	193	242	78
MIN	24	30	50	52	55	32	16	12	3.2	21	26	27
AC-FT	2740	6520	3540	3600	3670	3310	2010	2080	3630	3470	3890	3490

CAL YR 1978 TOTAL 39809.25 MEAN 109 MAX 17100 MIN .50 AC-FT 78960
WTR YR 1979 TOTAL 21151.40 MEAN 57.9 MAX 774 MIN 3.2 AC-FT 41950

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 2 mi (3.2 km) downstream from discharge station.

PERIOD OF RECORD.--Water years 1937 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1937 to current year.
WATER TEMPERATURES: October 1952 to current year.

REMARKS.--No appreciable inflow between discharge station and sampling point except during periods of heavy local rains.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 51,400 micromhos June 20, 1972; minimum daily, 268 micromhos Sept. 19, 1946.
WATER TEMPERATURES: Maximum, 36.0°C July 31, 1966, July 13, 1970; minimum, 1.0°C Jan. 10, 11, 1962, Jan. 13, 1963.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 28,000 micromhos Oct. 27; minimum daily, 3,710 micromhos June 10.
WATER TEMPERATURES: Maximum, 31.0°C July 1, 10, 28; minimum, 3.5°C Dec. 9, 11.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT 27...	1000	57	28000	7.7	11.0	14.0	1.1	9.8	290	2700	2500	550
NOV 15...	1200	41	12400	8.2	7.5	13.5	2.0	14.0	100	1300	1200	300
DEC 11...	1000	59	10200	8.3	4.5	3.5	3.0	13.6	190	1700	1600	370
JAN 24...	1300	57	11100	8.9	6.5	6.5	14	16.4	98	1900	1900	480
FEB 20...	1430	69	9800	9.4	20.0	11.0	2.6	17.2	88	1700	1700	380
MAR 21...	1000	54	12300	8.3	18.5	15.5	5.3	9.7	160	2000	1800	420
APR 17...	1000	19	14800	8.4	23.5	20.5	1.0	12.2	170	1300	1200	490
MAY 16...	1130	20	18400	8.2	26.0	21.5	30	9.8	110	2400	2300	500
JUN 21...	0900	116	5200	8.1	27.5	25.5	15	6.3	61	1200	1000	280
JUL 18...	0930	48	13300	8.1	28.5	27.0	3.4	6.2	97	2100	2100	510
AUG 09...	0830	35	11200	8.2	28.0	27.0	16	7.7	88	1900	1800	460
SEP 13...	0950	63	8750	8.2	26.0	25.0	7.5	8.3	74	1700	1600	490

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 27...	310	5200	44	160	180	2500	7700	.6	11	16800	16500	1.7
NOV 15...	140	2100	25	62	110	1100	3200	.4	8.7	7640	--	.41
DEC 11...	180	1700	18	61	100	1300	2900	.6	5.0	7000	6580	.53
JAN 24...	180	1700	17	53	75	1700	2800	.6	1.3	6970	6960	.01
FEB 20...	190	1700	18	49	53	1900	2500	.6	.1	6560	6750	.01
MAR 21...	220	2200	22	86	130	1800	3200	.8	5.8	8300	8010	.34
APR 17...	25	2600	31	83	92	2000	4300	.8	6.9	10000	9560	.02
MAY 16...	280	3400	30	28	130	2200	5500	.8	20	12500	12000	.02
JUN 21...	110	750	9.6	25	110	960	1200	.5	1.9	3540	3390	.02
JUL 18...	210	2400	23	22	70	2500	3800	.8	8.4	9490	9490	.03
AUG 09...	180	1900	19	68	74	1700	3000	.7	10	9170	7360	.05
SEP 13...	120	1400	15	43	91	1600	2300	.8	12	6620	6020	.03

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT 27...	1.7	.17	.79	2.7	.030	--	1300	30	--	6.1	6.1	.3
NOV 15...	.47	.02	.85	1.3	.040	.00	550	30	--	6.5	4.4	--
DEC 11...	.57	.02	1.1	1.6	.070	.00	590	40	70	--	3.2	--
JAN 24...	.12	.01	1.2	1.2	.080	.00	550	30	--	8.8	3.6	6.0
FEB 20...	.00	.08	1.5	1.6	.050	.00	550	40	--	13	4.6	10
MAR 21...	.39	.23	1.3	1.8	.060	.02	700	50	130	--	5.7	1.4
APR 17...	.00	.09	1.9	2.0	.060	.02	820	40	--	12	6.4	--
MAY 16...	.10	.20	.90	1.1	.060	.00	1100	40	--	8.3	7.9	1.8
JUN 21...	.00	.04	1.2	1.2	.130	.01	310	30	20	--	28	7.4
JUL 18...	.03	.09	1.0	1.1	.100	.04	860	20	--	6.6	3.8	1.5
AUG 09...	.01	.08	.87	1.0	.050	.00	610	70	--	8.3	5.9	1.5
SEP 13...	.02	.09	.90	1.0	.030	.01	570	20	30	--	4.1	2.7

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
DEC 11...	1000	1	1	0	100	590	0	1	10	0
MAR 21...	1000	1	1	0	0	700	0	3	20	20
JUN 21...	0900	1	0	0	100	310	1	0	10	10
SEP 13...	0950	1	1	200	100	570	0	0	20	20

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
DEC 11...	0	1	2	1	130	40	3	3	70
MAR 21...	0	0	1	0	200	50	14	--	180
JUN 21...	0	0	6	1	590	30	14	0	160
SEP 13...	0	0	2	1	540	20	4	0	100

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
DEC 11...	70	.0	.0	3	3	0	0	20	20
MAR 21...	130	.0	.0	2	2	0	0	40	30
JUN 21...	20	.1	.1	1	1	0	0	30	10
SEP 13...	30	1.1	1.4	2	1	0	0	40	50

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DISSOLVED, EXTRACTION (UG/L) (80020)
NOV 15...	1200	<92	.4	45	1.2	41	1.2	.19	4.4
APR 17...	1000	<230	<.6	<85	<.8	<75	<.9	.17	6.5

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	CHLORDANE, TOTAL (UG/L) (39350)	CHLORDANE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)
NOV 15...	1200	ND	ND	ND	ND	ND	ND	ND	ND	ND	--
FEB 20...	1430	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 16...	1130	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.3
AUG 09...	0830	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	P,P' DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39321)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIAZINON, TOTAL (UG/L) (39570)	DIAZINON, TOTAL IN BOTTOM MATERIAL (UG/KG) (39571)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	ETHION, TOTAL (UG/L) (39398)	ETHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39399)
NOV 15...	2.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 20...	--	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 16...	--	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 09...	--	ND	--	ND	--	ND	--	ND	--	ND	--

DATE	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	MALATHION, TOTAL (UG/L) (39530)	MALATHION, TOTAL IN BOTTOM MATERIAL (UG/KG) (39531)	METHOXYCHLOR, TOTAL (UG/L) (39480)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)
NOV 15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB 20...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY 16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG 09...	ND	--	ND	--	ND	--	ND	--	ND	--

ND Material specifically tested for but not detected.

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	METHYL PARA-THION, TOTAL (UG/L) (39600)	METHYL PARA-THION, TOT. IN BOTTOM MATL. (UG/KG) (39601)	METHYL TRI-THION, TOTAL (UG/L) (39790)	METHYL TRI-THION, TOT. IN BOTTOM MATL. (UG/KG) (39791)	PARA-THION, TOTAL (UG/L) (39540)	PARA-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39541)	TOX-APHENE, TOTAL (UG/L) (39400)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	TRI-THION, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39787)
NOV										
15...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
FEB										
20...	ND	--	ND	--	ND	--	ND	--	ND	--
MAY										
16...	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
AUG										
09...	ND	--	ND	--	ND	--	ND	--	ND	--

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
27...	1000	18	140
NOV			
15...	1200	8	32
DEC			
11...	1000	5	33
JAN			
24...	1300	0	12
FEB			
20...	1430	0	14
MAR			
21...	1000	0	9
APR			
17...	1000	67	19
MAY			
16...	1130	7	34
JUN			
21...	0900	51	280
JUL			
18...	0930	31	820
AUG			
09...	0830	17	10
SEP			
13...	0950	90	22

ND Material specifically tested for but not detected.

RIO GRANDE BASIN

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 15,78		MAR 21,79		MAY 16,79		JUN 21,79	
TIME	1200		1000		1130		0900	
TOTAL CELLS/ML	48000		28000		190000		59000	
DIVERSITY: DIVISION	0.8		1.0		0.7		1.5	
.CLASS	0.8		1.0		0.7		1.5	
..ORDER	1.0		1.1		0.7		2.0	
...FAMILY	1.2		1.2		0.8		2.2	
....GENUS	1.8		1.2		0.8		2.3	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	1100	2	370	1	2600	1	--	-
....CHLORELLA	--	-	--	-	--	-	--	-
....CHODATELLA	360	1	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	210	1	--	-	2000	3
....FRANCEIA	360	1	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	*	0	--	-	--	-
....OOCYSTIS	5000	11	--	-	1300	1	1800	3
....QUADRIGULA	1400	3	--	-	--	-	--	-
....SELENASTRUM	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	340	1
...SCENEDESMACEAE								
....CRUCIGENIA	--	-	210	1	--	-	--	-
....SCENEDESMUS	4300	9	2300	8	13000	7	2000	3
....TETRASTRUM	--	-	--	-	--	-	670	1
..VOLVOCALES								
...CHLAMYDOMONADACEAF								
....CARTERIA	--	-	--	-	--	-	340	1
....CHLAMYDOMONAS	--	-	--	-	*	0	1500	3
..ZYGNEMATALES								
...DESMIDIACEAE								
....CLOSTERIUM	360	1	--	-	--	-	--	-
....COSMARIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...CHAETOCERACEAE								
....CHAETOCEROS	--	-	--	-	160000#	86	--	-
...COSCINODISCACEAE								
....CYCLOTELLA	32000#	67	2700	9	--	-	6500	11
....MELOSIRA	2500	5	--	-	--	-	--	-
..PENNALES								
...CYMBELLACEAE								
....CYMBELLA	--	-	*	0	--	-	--	-
...NAVICULACEAE								
....ENTOMONEIS	--	-	--	-	--	-	--	-
....GYROSIGMA	--	-	--	-	--	-	*	0
....NAVICULA	--	-	260	1	--	-	*	0
...NITZSCHIACEAE								
....NITZSCHIA	360	1	--	-	--	-	5700	10
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	160	1	--	-	340	1
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	22000#	77	9000	5	2500	4
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	--	-
....ANABAENOPSIS	--	-	--	-	--	-	--	-
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	34000#	57
....SCHIZOTHRIX	--	-	--	-	--	-	--	-
....SPIRULINA	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	*	0
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..GYMNODINIALES								
...GYMNODINIACEAE								
....GYMNODINIUM	--	-	--	-	--	-	670	1
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	JUL 18,79		AUG 9,79		SEP 13,79	
TIME	0930		0830		0950	
TOTAL CELLS/ML	59000		210000		110000	
DIVERSITY: DIVISION	1.4		0.7		1.3	
.CLASS	1.4		0.7		1.3	
..ORDER	1.8		1.0		1.9	
...FAMILY	1.9		1.6		2.2	
....GENUS	2.3		1.9		3.0	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	*	0	1100	1	16000	15
....CHLORELLA	--	-	--	-	9300	8
....CHODATELLA	--	-	*	0	6100	6
....DICTYOSPHAERIUM	3900	6	--	-	--	-
....FRANCEIA	--	-	--	-	--	-
....KIRCHNERIELLA	--	-	--	-	*	0
....OOCYSTIS	2400	4	2700	1	--	-
....QUADRIGULA	--	-	--	-	--	-
....SELENASTRUM	--	-	*	0	--	-
....TETRAEDRON	*	0	*	0	*	0
...SCENEDESMACEAE						
....CRUCIGENIA	--	-	5400	3	--	-
....SCENEDESMUS	1400	2	1100	1	7300	7
....TETRASTRUM	--	-	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CARTERIA	--	-	--	-	--	-
....CHLAMYDOMONAS	*	0	--	-	--	-
..ZYGNEMATALES						
...DESMIDIACEAE						
....CLOSTERIUM	--	-	--	-	--	-
....COSMARIUM	--	-	*	0	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...CHAETOCERACEAE						
....CHAETOCEROS	--	-	--	-	--	-
...COSCINODISCACEAE						
....CYCLOTELLA	21000#	36	15000	7	2000	2
....MELOSIRA	--	-	--	-	--	-
..PENNALES						
...CYMBELLACEAE						
....CYMBELLA	--	-	--	-	--	-
...NAVICULACEAE						
....ENTOMONEIS	*	0	*	0	--	-
....GYROSIGMA	--	-	--	-	--	-
....NAVICULA	--	-	--	-	--	-
...NITZSCHIACEAE						
....NITZSCHIA	--	-	1900	1	5300	5
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..CHROOCOCCALES						
...CHROOCOCCACEAE						
....AGMENELLUM	20000#	34	--	-	36000#	32
....ANACYSTIS	4300	7	5900	3	2400	2
..HORMOGONALES						
...NOSTOCACEAE						
....ANABAENA	--	-	23000	11	--	-
....ANABAENOPSIS	--	-	13000	7	--	-
...OSCILLATORIACEAE						
....OSCILLATORIA	4800	8	130000#	65	--	-
....SCHIZOTHRIX	--	-	--	-	15000	14
....SPIRULINA	--	-	1100	1	8900	8
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....EUGLENA	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)						
.DINOPHYCEAE						
..GYMNODINIALES						
...GYMNODINIACEAE						
....GYMNODINIUM	--	-	--	-	--	-
..PERIDINIALES						
...GLENODINIACEAE						
....GLENODINIUM	--	-	--	-	810	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PERIPHYTON

DATE	TIME	LENGTH OF EXPOSURE (DAYS) (00022)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLOROPHYLL RATIO PERIPHYTON (UNITS) (70950)	SAMPLING METHOD
JAN 24...	1300	44	50.9	48.2	30.5	.000	--	Polyethylene strip
FEB 20...	1430	27	31.7	30.6	5.35	.000	--	■
APR 17...	1000	27	8.35	7.48	2.15	.000	405	■
JUL 18...	0930	27	.790	.630	.220	.000	727	■
AUG 09...	0830	23	1.65	1.42	.800	.000	288	■

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1979 TO SEPTEMBER 1980

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 27...	1000	57	14.0	31	4.8	64
NOV 15...	1200	41	13.5	13	1.4	89
DEC 11...	1000	59	3.5	15	2.4	97
JAN 24...	1300	57	6.5	20	3.1	94
FEB 20...	1430	69	11.0	15	2.8	51
MAR 21...	1000	54	15.5	15	2.2	66
APR 17...	1000	19	20.5	15	.77	98
MAY 16...	1130	20	21.5	39	2.1	82
JUN 21...	0900	116	25.5	100	31	66
JUL 18...	0930	48	27.0	26	3.4	87
AUG 09...	0830	35	27.0	24	2.3	84
SEP 13...	0950	63	25.0	24	4.1	58

08407500 PECOS RIVER AT RED BLUFF, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9390	20000	11300	10200	10400	9900	13000	15100	4480	7440	8510	7370
2	11600	19400	10900	10300	10700	10200	12600	15100	6940	8030	8850	7550
3	13200	19300	10800	10000	10800	11800	11300	15200	6390	8740	9410	7530
4	15000	10700	10800	9910	10500	11100	11100	15300	6970	9390	9850	8080
5	16200	15300	10700	10100	10300	10600	11400	15700	6520	10300	10200	8470
6	17600	4320	11000	9910	10600	11100	11700	15200	6310	10800	10600	8740
7	18900	4490	11000	9910	10700	11700	12000	15400	6560	12400	11500	9050
8	19600	5440	10700	10100	10700	11100	13900	15500	6920	12300	12200	9310
9	20300	6520	10800	10300	10700	11300	13000	15600	6730	12800	11800	9190
10	21400	7610	11000	10100	10500	11500	12700	15900	3710	13000	11500	9310
11	22200	8610	10400	10300	10600	11500	13300	16500	7320	13000	10600	9220
12	22600	9460	10900	10400	10000	12000	13900	17500	8020	13200	11500	9190
13	23000	10300	10900	10800	10600	12800	13800	17300	8710	13400	11400	9360
14	23500	11200	10400	10900	9910	12300	13500	17000	8780	13400	11300	9340
15	23800	12000	10500	10600	9910	12200	13400	17100	8350	13400	11300	11100
16	23800	12500	10600	11700	9910	13000	13800	17000	8150	13500	11200	10900
17	24000	---	10800	11800	10200	13200	14200	17900	8350	13800	11300	10700
18	24200	13800	10400	10400	10500	13700	14800	17900	8420	13800	11300	10600
19	24500	13600	10900	10300	10100	12000	14900	17900	11100	7670	11300	11100
20	24700	13300	11500	10600	9720	11900	15000	16600	5840	10300	6490	10200
21	25100	13600	11200	10600	10100	12000	15500	16700	5290	7370	5270	9730
22	25400	13700	11400	10300	10200	12800	15800	16000	5150	7480	7250	9490
23	25000	13500	11500	11300	10200	13400	15400	14800	5150	6810	9800	9440
24	24400	13100	11100	10900	9910	13100	15700	14400	5260	6240	9910	9120
25	24100	12800	11100	9830	9820	13200	15300	14300	5550	6180	9460	9050
26	24700	12200	10900	10400	9550	13700	15000	14200	5740	6060	8720	9120
27	23900	12000	11200	10400	9730	15000	14600	12500	5940	6200	8350	9290
28	20700	11700	10900	9910	10300	16400	14400	14000	6310	6680	6630	9190
29	22200	11400	11000	10000	---	13200	14600	17100	6600	7090	9100	9390
30	19400	11700	11000	10600	---	16400	14800	12500	6970	7760	9940	9590
31	19300	---	10600	10400	---	13700	---	10800	---	8150	8050	---
MEAN	21100	11800	10900	10400	10300	12500	13800	15600	6750	9890	9830	9320

WTR YR 1979 MEAN 11900 MAX 25400 MIN 3710

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	22.5	18.0	11.5	5.5	6.0	13.5	18.5	24.0	18.0	31.0	29.0	30.0
2	23.0	19.0	12.0	4.0	6.5	13.0	18.5	23.0	19.5	30.5	26.5	29.5
3	23.5	19.5	11.0	4.0	7.0	13.5	17.5	22.0	22.5	27.5	27.5	30.5
4	24.0	16.0	10.5	4.5	7.0	13.5	19.0	22.5	24.0	27.0	27.0	27.5
5	23.0	16.5	10.0	4.5	6.0	13.5	19.5	23.0	25.5	29.5	27.0	29.0
6	23.0	16.0	8.5	4.5	6.0	12.5	18.5	24.5	26.5	30.0	26.5	28.5
7	23.0	15.0	6.0	4.0	7.5	15.5	21.0	24.0	26.5	30.0	27.0	28.0
8	23.5	15.0	4.0	4.0	9.0	16.0	20.5	24.0	28.0	30.5	27.5	28.5
9	24.5	17.0	3.5	4.5	9.5	15.5	20.0	24.0	24.5	30.0	28.0	28.5
10	24.0	16.5	4.0	4.0	10.0	15.5	18.5	23.5	24.0	31.0	28.5	28.0
11	24.0	14.5	4.5	6.0	11.0	14.5	17.5	24.0	26.5	30.0	25.0	27.0
12	24.0	14.0	4.5	7.5	11.5	15.5	16.0	23.5	26.5	29.0	24.5	27.0
13	19.5	15.0	5.5	7.5	12.5	17.0	17.5	24.5	27.5	29.0	25.0	23.0
14	20.0	15.0	6.5	7.0	13.5	14.5	20.0	24.5	28.5	28.0	24.5	23.0
15	20.0	13.5	7.5	5.5	14.0	14.0	21.5	24.5	26.5	30.0	25.0	19.5
16	20.0	13.0	8.5	5.5	11.5	13.5	30.5	23.5	28.0	28.0	24.0	19.5
17	20.0	13.0	8.0	6.5	11.5	15.0	23.5	25.5	26.0	28.0	24.0	20.5
18	21.5	13.0	8.5	9.0	10.5	16.5	25.0	26.0	27.5	28.0	21.5	20.5
19	21.0	13.0	10.5	9.5	11.0	17.0	25.5	27.0	26.5	24.0	23.5	22.5
20	20.0	13.0	10.0	8.5	11.5	16.5	23.0	26.0	26.5	24.0	19.5	24.0
21	19.0	12.5	10.0	8.5	8.0	16.0	23.0	24.5	27.5	26.0	19.5	23.5
22	20.5	13.0	8.5	9.0	12.5	16.5	23.5	25.0	28.5	27.0	24.0	25.0
23	16.5	13.5	8.5	8.5	12.0	18.0	24.0	26.0	29.0	27.0	26.0	24.5
24	15.5	12.5	8.5	8.0	13.0	17.5	24.0	25.0	29.0	29.0	29.5	25.5
25	15.5	14.0	9.0	8.5	13.5	17.5	24.5	25.5	30.0	29.0	29.5	25.0
26	15.5	14.5	8.5	9.0	13.0	18.5	24.5	27.0	29.0	30.0	28.5	24.5
27	16.0	12.5	8.0	8.5	12.0	18.0	24.5	24.0	30.5	30.0	27.5	24.5
28	17.5	11.5	8.5	7.5	12.0	18.0	23.5	26.0	30.5	31.0	27.5	24.5
29	17.5	11.5	7.0	7.5	---	18.5	22.0	25.5	30.5	30.0	27.5	25.0
30	18.0	11.0	6.5	6.5	---	18.5	22.0	26.0	30.5	29.5	28.0	25.5
31	17.0	---	7.0	5.5	---	18.5	---	25.5	---	30.0	29.5	---
MEAN	20.5	14.5	8.0	6.5	10.5	16.0	21.5	24.5	27.0	29.0	26.0	25.5

WTR YR 1979 MEAN 19.0 MAX 31.0 MIN 3.5

08408500 DELAWARE RIVER NEAR RED BLUFF, NM

LOCATION.--Lat 32°01'23", long 104°03'15", in NE¼SW¼SE¼ sec.23, T.26 S., R.28 E., Eddy County, Hydrologic Unit 13070002, near center of channel on downstream side of pier of bridge on U.S. Highway 285, 2.1 mi (3.4 km) north of the New Mexico-Texas state line, 3.6 mi (5.8 km) southwest of Red Bluff, 3.7 mi (6.0 km) upstream from mouth and 14 mi (22.5 km) south of Malaga. Mouth at Pecos River mile 405.6 (652.6 km).

DRAINAGE AREA.--689 mi² (1,785 km²).

PERIOD OF RECORD.--April 1912 to September 1913, May 1914 to June 1915, October 1937 to current year. Published as "near Malaga" 1912-13, and as "near Angeles, Tex." 1914-15.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 2,900.66 ft (884.121 m) National Geodetic Vertical Datum of 1929. Prior to May 1914, at site 3.0 mi (4.8 km) upstream at different datum. May 1914 to June 1915 at site 2.5 mi (4.0 km) downstream at different datum.

REMARKS.--Records fair. One small upstream diversion. Several observations of water temperature during year.

AVERAGE DISCHARGE.--42 years (1938-79), 13.6 ft³/s (0.385 m³/s), 9,850 acre-ft/yr (12.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,400 ft³/s (2,310 m³/s) Oct. 2, 1955, gage height, 27.0 ft (8.23 m), from floodmarks, from rating curve extended above 1,500 ft³/s (42.5 m³/s) on basis of slope-area measurements at gage heights 8.65 ft (2.637 m), 12.84 ft (3.914 m), 18.00 ft (5.486 m), and 27.0 ft (8.230 m); no flow many days most years.
Maximum discharge since at least 1911 is that of Oct. 2, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,910 ft³/s (82.4 m³/s) at 0100 hours Aug. 19, gage height, 7.96 ft (2.426 m) no other peak above base of 1,700 ft³/s (48 m³/s); minimum, 0.16 ft³/s (0.005 m³/s) July 11-14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	75	7.6	8.0	7.2	6.2	5.7	5.3	6.1	119	2.4	35	7.6
2	71	7.6	8.0	6.8	6.4	5.7	5.5	6.0	393	2.0	8.9	7.2
3	69	17	7.8	6.4	6.4	5.6	5.4	5.5	59	2.0	16	6.0
4	65	201	7.6	6.8	6.3	5.6	5.4	5.3	33	2.4	8.5	5.6
5	55	71	7.7	6.4	7.3	5.6	5.3	5.5	26	19	1.8	5.3
6	52	28	7.6	6.4	7.3	5.7	5.6	5.7	21	3.7	1.2	4.9
7	49	19	7.6	6.4	7.2	5.5	6.1	5.5	16	2.4	.90	4.5
8	49	14	7.6	6.4	6.6	5.7	6.0	5.2	14	1.5	.76	4.1
9	47	11	7.6	6.4	6.3	5.6	6.0	5.0	224	1.5	.86	4.5
10	47	11	7.6	6.4	6.2	5.4	5.6	4.8	37	.91	.94	4.5
11	47	9.9	7.6	6.4	6.0	5.6	4.8	4.9	23	.65	.78	4.5
12	46	9.8	7.2	6.4	5.7	6.0	4.6	4.9	18	.65	1.0	4.1
13	46	9.6	6.8	6.4	5.7	6.2	5.0	5.2	15	.65	48	4.1
14	46	9.6	6.8	6.4	5.7	6.0	5.3	5.2	13	.65	25	4.1
15	40	9.3	7.2	6.4	5.6	5.6	5.6	5.1	10	.65	15	4.9
16	45	9.1	6.8	6.2	5.5	5.8	5.7	5.2	9.0	.65	5.7	7.2
17	45	8.9	6.8	6.2	5.4	6.2	5.7	5.4	8.0	3.4	28	12
18	45	8.9	6.8	6.2	5.6	6.1	5.6	12	7.0	1.2	145	12
19	45	8.8	6.8	6.2	5.6	6.0	5.6	6.3	6.0	22	623	11
20	45	8.7	6.8	6.2	5.6	6.1	5.5	5.1	5.0	16	39	10
21	44	8.9	6.4	6.4	5.7	6.5	5.5	4.5	4.0	5.6	72	12
22	44	8.9	6.4	6.4	5.6	6.2	5.5	4.5	3.0	3.4	32	11
23	44	9.3	6.4	6.4	5.7	5.5	5.5	4.5	47	7.6	11	11
24	27	8.9	6.4	6.4	5.8	5.4	5.3	4.5	25	5.8	8.0	6.0
25	11	8.9	6.4	6.4	5.7	5.7	5.4	4.5	10	2.7	7.2	5.3
26	9.4	8.9	6.4	6.4	5.9	5.7	5.3	6.4	5.5	4.5	6.8	4.9
27	8.9	8.3	6.4	6.4	5.7	5.7	5.3	8.9	4.5	3.6	7.2	4.5
28	8.5	8.0	6.4	6.4	5.7	5.9	5.3	10	3.4	1.7	8.0	4.5
29	8.1	8.0	6.8	6.2	---	5.6	5.4	17	3.0	1.2	8.9	4.5
30	8.0	8.0	6.8	6.1	---	5.3	5.6	7.1	2.7	1.1	8.5	4.1
31	7.6	---	7.2	6.0	---	5.5	---	25	---	2.9	8.0	---
TOTAL	1249.5	565.9	218.7	198.1	168.4	178.7	163.7	210.8	1164.1	124.41	1182.94	195.9
MEAN	40.3	18.9	7.05	6.39	6.01	5.76	5.46	6.80	38.8	4.01	38.2	6.53
MAX	75	201	8.0	7.2	7.3	6.5	6.1	25	393	22	623	12
MIN	7.6	7.6	6.4	6.0	5.4	5.3	4.6	4.5	2.7	.65	.76	4.1
AC-FT	2480	1120	434	393	334	354	325	418	2310	247	2350	389

CAL YR 1978 TOTAL 12474.62 MEAN 34.2 MAX 4960 MIN .00 AC-FT 24740
WTR YR 1979 TOTAL 5621.15 MEAN 15.4 MAX 623 MIN .65 AC-FT 11150

08410000 RED BLUFF RESERVOIR NEAR ORLA, TX

LOCATION.--Lat 31°54'04", long 103°54'35", Reeves County, Hydrologic Unit 13070001, at right end of Red Bluff Dam on the Pecos River, 2.8 mi (4.5 km) upstream from Salt Creek, and 5.2 mi (8.4 km) north of Orla.

DRAINAGE AREA.--20,720 mi² (53,660 km²), approximately (contributing area).

PERIOD OF RECORD.--February 1937 to current year. Monthly contents only for some periods, published in WSP 1312.

GAGE.--Nonrecording gage. Datum of gage is 0.43 ft (0.131 m) below National Geodetic Vertical Datum of 1929.

REMARKS.--The reservoir is formed by a rock-faced earthfill dam 9,200 ft (2,800 m) long. The dam was completed and storage began in September 1936. The dam and reservoir are owned and operated by the Red Bluff Water Power Control District. The water is used for power development and for irrigation from Mentone to Grandfalls. The uncontrolled emergency spillway, 790 ft (241 m) wide, is a cut through natural ground located to the right of right end of dam. The controlled service spillway is equipped with 12 tainter gates that are 25 by 15 ft (8 by 5 m) high. Inflow is partly regulated by storage in Lake Sumner, Lake McMillan, and Lake Avalon, total combined capacity 154,400 acre-ft (190 hm³), and by several small diversion dams that divert water for power or irrigation. The capacity curve is based on Geological Survey topographic map, survey of 1925. Figures given herein represent total contents. Data regarding the dam and reservoir are given in the following table:

	Gage height (feet)	Capacity (acre-feet)
Top of dam..	2,856.0	-
Crest of spillway..	2,845.0	340,000
Top of gates (top of conservation pool)..............................	2,842.0	310,000
Crest of spillway..	2,827.0	166,500
Lowest gated outlet (invert)...	2,764.0	3,000

COOPERATION.--Gage-height records and capacity curve were furnished by the Red Bluff Water Power and Control District.

EXTREMES (at 0800) FOR PERIOD OF RECORD.--Maximum contents observed, 352,000 acre-ft (434 hm³) Sept. 27, 28, 1941, gage height, 2,846.2 ft (867.52 m), observed on nonrecording gage at service spillway (affected by variable drawdown due to flow through tainter gates); minimum observed, 11,080 acre-ft (13.7 hm³) May 13, 1948, gage height, 2,781.4 ft (847.77 m).

EXTREMES (at 0800) FOR CURRENT YEAR.--Maximum contents observed, 110,600 acre-ft (136 hm³) Mar. 29 to Apr. 12, gage height, 2,818.2 ft (858.99 m); minimum observed, 83,600 acre-ft (103 hm³) Sept. 30, gage height, 2,812.8 ft (857.34 m).

Capacity table (gage height, in feet, and total contents, in acre-feet)

2,812.0	80,000
2,815.0	94,000
2,819.0	115,000

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 0800

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97000	96500	104000	106000	107000	110000	111000	110000	103000	99000	97000	87700
2	97500	96500	104000	106000	108000	110000	111000	110000	103000	98500	96500	87700
3	97500	96500	104000	106000	108000	110000	111000	109000	104000	98500	96000	87700
4	97000	97500	104000	106000	108000	110000	111000	108000	105000	98500	95000	87700
5	97000	101000	104000	106000	108000	110000	111000	108000	105000	98500	95000	87700
6	97000	103000	104000	106000	108000	110000	111000	108000	105000	98500	94500	87700
7	97000	103000	104000	106000	108000	110000	111000	108000	105000	98500	94000	87200
8	97000	103000	104000	106000	108000	110000	111000	107000	105000	98000	94000	87200
9	97000	103000	104000	106000	108000	110000	111000	107000	105000	98000	93500	87200
10	97000	104000	105000	106000	108000	110000	111000	107000	105000	98000	93000	86800
11	97000	104000	105000	106000	108000	110000	111000	107000	105000	97500	92000	86800
12	97000	104000	105000	106000	109000	110000	111000	106000	105000	97500	91500	86300
13	96500	104000	105000	106000	109000	110000	110000	106000	104000	97500	91000	86300
14	96500	104000	105000	106000	109000	110000	110000	106000	103000	97000	90000	85900
15	96500	104000	105000	106000	109000	110000	110000	106000	103000	97000	89000	85900
16	96500	104000	105000	106000	109000	110000	110000	105000	102000	96500	88600	85400
17	96500	104000	105000	107000	109000	110000	110000	105000	101000	96000	88100	85400
18	96500	104000	105000	107000	110000	110000	110000	105000	101000	96000	87200	85000
19	96000	104000	105000	107000	110000	110000	110000	104000	100000	96000	86300	85000
20	96000	104000	105000	107000	110000	110000	110000	104000	99500	96500	87200	85000
21	96000	104000	105000	107000	110000	110000	110000	104000	99500	97500	88100	85000
22	96000	104000	105000	107000	110000	110000	110000	104000	99500	97500	88100	84500
23	96000	104000	105000	107000	110000	110000	110000	104000	99500	98000	88100	84500
24	96000	104000	105000	107000	110000	110000	110000	103000	99500	98000	88100	84500
25	96500	104000	105000	107000	110000	110000	110000	103000	99500	98000	87700	84500
26	96500	104000	105000	107000	110000	110000	110000	103000	99500	98000	87700	84100
27	96500	104000	105000	107000	110000	110000	110000	103000	99500	97500	87200	84100
28	96500	104000	105000	107000	110000	110000	110000	103000	99000	97500	87200	84100
29	96500	104000	105000	107000	---	111000	110000	103000	99000	97500	87200	84100
30	96500	104000	105000	107000	---	111000	110000	103000	99000	97500	87700	83600
31	96500	---	106000	107000	---	111000	---	102000	---	97000	87700	---
MAX	97500	104000	106000	107000	110000	111000	111000	110000	105000	99000	97000	87700
MIN	96000	96500	104000	106000	107000	110000	110000	102000	99000	96000	86300	83600

CAL YR 1978 MAX 106000 MIN 22900
WTR YR 1979 MAX 111000 MIN 83600

08412500 PECOS RIVER NEAR ORLA, TX

LOCATION.--Lat 31°52'21", long 103°49'52", Reeves County, Hydrologic Unit 13070001, on right bank at bridge on Farm Road 652, 5.5 mi (8.8 km) downstream from Salt Creek (Screw Bean Arroyo), 5.9 mi (9.5 km) northeast of Orla, and 8.5 mi (13.7 km) downstream from Red Bluff Reservoir.

DRAINAGE AREA.--21,210 mi² (54,930 km²), approximately (contributing area).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--May 1937 to current year.

REVISED RECORDS.--WSP 928: 1937.

GAGE.--Water-stage recorder. Datum of gage is 2,730.86 ft (832.366 m) National Geodetic Vertical Datum of 1929. Prior to Nov. 16, 1969, at site 6.9 mi (11.1 km) downstream at datum 12.81 ft (3.904 m) lower.

REMARKS.--Water-discharge records fair. Most of flow is released from storage in Red Bluff Reservoir (station 08410000). Occasional runoff from draws between dam and station. Many diversions above Red Bluff Reservoir for irrigation.

AVERAGE DISCHARGE.--42 years (water years 1938-79), 171 ft³/s (4.843 m³/s), 123,900 acre-ft/yr (153 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,700 ft³/s (671 m³/s) Sept. 29, 1941, gage height, 20.74 ft (6.322 m), site and datum then in use; no flow at times in 1946 and 1965.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,180 ft³/s (33.4 m³/s) June 1, gage height, 10.50 ft (3.200 m); minimum, 13 ft³/s (0.37 m³/s) Apr. 11-16, 26-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	28	26	22	24	22	16	14	577	33	460	34
2	54	29	26	22	24	23	15	42	484	33	612	33
3	51	31	26	24	23	22	15	130	129	45	473	32
4	47	307	26	26	23	21	14	120	75	88	449	31
5	43	186	26	26	27	22	14	119	42	93	84	33
6	40	58	26	26	30	23	14	120	37	99	93	82
7	38	38	26	26	35	21	14	121	33	98	274	96
8	37	33	26	26	35	23	14	118	41	98	278	99
9	36	32	26	26	31	22	15	116	75	99	278	100
10	34	31	26	26	27	22	15	116	74	102	288	101
11	33	30	25	26	26	22	14	116	115	104	378	103
12	31	30	25	26	26	22	13	118	321	108	402	103
13	29	31	25	26	25	23	13	119	322	110	401	104
14	29	32	25	26	23	24	13	119	327	113	411	104
15	29	30	25	24	22	24	13	120	330	115	441	107
16	29	30	25	23	21	23	13	120	333	118	441	109
17	29	31	24	23	21	23	14	118	324	123	435	117
18	28	31	24	23	22	23	15	117	329	125	436	118
19	27	31	24	23	22	23	15	115	330	338	456	115
20	26	31	24	23	22	19	16	114	330	589	426	112
21	27	31	24	22	22	18	15	113	177	225	238	110
22	28	30	24	21	22	19	14	111	33	143	96	107
23	47	30	23	22	23	18	14	112	32	130	101	107
24	44	30	23	23	23	17	14	115	32	125	100	106
25	43	29	23	23	22	16	14	109	33	123	93	104
26	36	29	22	24	23	16	13	38	34	103	91	103
27	32	27	22	24	23	16	13	37	34	36	91	103
28	31	26	22	24	22	16	13	61	34	48	75	102
29	31	27	22	24	---	15	13	118	34	39	38	102
30	30	27	22	24	---	15	13	329	33	35	35	102
31	29	---	22	24	---	16	---	336	---	124	35	---
TOTAL	1110	1366	755	748	689	629	421	3671	5104	3762	8509	2779
MEAN	35.8	45.5	24.4	24.1	24.6	20.3	14.0	118	170	121	274	92.6
MAX	62	307	26	26	35	24	16	336	577	589	612	118
MIN	26	26	22	21	21	15	13	14	32	33	35	31
AC-FT	2200	2710	1500	1480	1370	1250	835	7280	10120	7460	16880	5510

CAL YR 1978 TOTAL 27292.2 MEAN 74.8 MAX 11400 MIN 2.0 AC-FT 54130
WTR YR 1979 TOTAL 29543.0 MEAN 80.9 MAX 612 MIN 13 AC-FT 58600

08412500 PECOS RIVER NEAR ORLA, TX -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--July 1937 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: July 1937 to current year.
WATER TEMPERATURES: March 1953 to current year.

REMARKS.--Station is operated by the Texas District.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 29,400 micromhos May 16, 1978; minimum daily, 1,610 micromhos June 2, 1948.
WATER TEMPERATURES (Water years 1953-61, 1968-79): Maximum, 31.0°C Aug. 13, 1978; minimum, 0.5°C Jan. 6, 1971, Jan. 11, 1973, Dec. 11, 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 21,300 micromhos April 7; minimum daily, 5,890 micromhos June 2.
WATER TEMPERATURES: Maximum, 26.0°C Aug. 21, Sept. 1, 4, 5; minimum 0.5°C Dec. 11.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT 03...	1555	52	16600	--	23.0	2900	2700	670	300	3100
DEC 30...	1100	22	19200	--	8.5	3300	3100	820	300	3900
JAN 09...	1530	26	19900	--	6.0	3300	3100	820	300	3800
FEB 13...	1420	25	18400	--	12.5	3100	2900	760	290	3500
MAR 27...	1510	17	20200	7.7	17.0	3400	3200	820	320	4100
MAY 08...	1505	117	8560	--	20.5	1800	1600	490	130	1500
JUN 20...	1645	332	8070	--	25.0	1400	1300	410	100	1000
JUL 31...	1005	33	13100	--	22.0	2300	2200	620	190	2300
SEP 11...	0950	168	9700	--	23.0	1700	1600	460	140	1500

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT 03...	25	48	230	0	189	2900	4800	.9	18	12000
DEC 30...	30	50	200	0	164	2900	6100	1.3	7.8	14200
JAN 09...	29	47	210	0	172	2800	5600	1.2	12	13500
FEB 13...	27	43	180	0	148	2700	5000	1.4	8.7	12400
MAR 27...	31	41	180	0	148	3000	6500	1.4	7.1	14900
MAY 08...	16	41	140	0	115	1600	2100	.6	4.4	5870
JUN 20...	11	37	120	0	98	780	1800	.5	5.6	4130
JUL 31...	21	42	140	0	115	2100	3700	.9	7.7	9030
SEP 11...	16	49	110	0	90	1600	2400	.6	8.5	6210

08412500 PECOS RIVER NEAR ORLA, TX -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14600	20600	20100	19400	18900	18600	20800	20000	6650	11400	8500	13100
2	15500	20600	20000	20300	18600	18400	20600	15000	5890	11400	7610	13200
3	16200	20400	20100	20100	18600	18500	20400	9570	8910	11300	8020	13100
4	17000	9280	19900	19500	18700	18400	20400	8710	10500	9290	8090	13000
5	17900	7990	19900	19600	18400	18600	20800	8650	12000	9120	9250	13100
6	18300	9320	20100	19700	18200	18200	21100	8500	12800	10300	9730	9610
7	18600	11200	19900	19900	19300	18200	21300	8490	13000	9810	8450	9700
8	18800	14100	20000	19800	20200	18400	21000	8560	12800	9590	8460	9600
9	19000	15900	19900	19900	19400	18700	20500	8420	10800	9450	8520	9630
10	19100	16200	20100	19700	19100	18400	21000	8400	9450	9370	8580	9660
11	19300	16300	19900	19600	18800	18300	21000	8380	9630	9290	8330	9710
12	19600	17000	20000	19500	18700	18200	21100	8370	8200	9160	8360	9780
13	19500	18100	20100	19800	18600	18400	21200	8350	8160	9090	8380	9770
14	19600	18800	20000	19600	18400	18400	21100	8400	8100	9040	8450	9820
15	19700	19300	20100	19400	18400	18600	21000	8420	8090	8970	8570	10000
16	19600	19600	19900	19200	18300	18200	20600	8630	8050	9040	8760	10500
17	19700	19800	19900	19200	18100	18100	19700	8710	8030	9540	8650	11000
18	19800	20000	19700	19300	18100	18200	20200	8560	7990	9200	8830	11300
19	20000	17800	19500	19400	18200	18700	20600	8710	7970	9120	9540	11200
20	20100	19900	19600	19500	18300	19200	20700	8630	8070	5990	8540	10900
21	20000	19900	19700	19400	18500	19600	20800	8710	9000	6440	8810	10600
22	20000	19800	19600	19100	18400	19800	20900	8770	10400	8350	10000	10400
23	19200	20000	19500	18900	18300	20000	20700	8800	10600	8780	10600	10300
24	15500	20100	19700	19100	18500	20200	20100	8560	11100	9000	11200	10200
25	19700	19900	19400	18900	18600	20400	20200	8750	12000	9170	10200	10200
26	20200	19800	19300	18800	18500	20000	20200	10000	12400	9370	9850	10000
27	20300	20000	19200	19000	18400	20200	20200	11300	11800	11500	9620	10000
28	20500	20000	19300	19100	18300	20200	20100	12600	11900	13300	9490	9900
29	20600	19800	19400	19000	---	19800	19900	10000	11600	14300	11000	9900
30	20500	20000	19300	18900	---	19600	19700	8000	11500	13600	12600	9960
31	20400	---	19100	19000	---	19800	---	7890	---	10000	12700	---
MEAN	19000	17700	19700	19400	18600	19000	20600	9450	9910	9780	9280	10600

WTR YR 1979 MEAN 15200 MAX 21300 MIN 5890

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	21.0	16.0	8.5	2.0	6.0	9.5	15.0	20.0	19.0	23.0	---	26.0
2	19.5	16.0	11.0	---	6.0	12.0	13.0	20.0	19.0	20.0	19.0	---
3	21.0	---	10.0	---	7.0	10.5	15.0	15.0	19.5	20.0	19.0	24.0
4	20.0	15.0	5.0	---	8.0	9.5	13.0	21.0	19.0	18.0	19.0	26.0
5	22.0	14.5	7.0	---	6.0	9.5	19.0	17.0	21.0	17.0	---	26.0
6	20.0	13.5	6.0	---	4.5	12.0	16.0	17.0	23.0	19.0	---	23.0
7	19.5	11.0	5.0	---	6.0	10.5	17.0	17.0	23.0	18.0	---	24.0
8	19.5	11.0	3.0	---	7.5	12.0	17.0	17.0	24.0	19.0	---	21.0
9	20.0	14.5	1.0	---	8.0	12.5	17.0	18.0	19.0	19.0	---	22.0
10	20.0	13.5	1.0	6.0	9.0	12.0	16.0	---	15.0	19.0	---	20.0
11	20.0	12.0	.5	6.5	9.0	9.5	13.0	19.0	15.0	19.0	---	21.0
12	22.0	10.0	3.0	8.5	9.0	11.0	13.0	17.0	---	16.0	---	21.0
13	19.5	10.0	3.5	7.0	11.0	13.5	13.0	17.0	15.0	20.0	---	22.0
14	17.0	13.5	5.0	6.5	11.0	14.0	15.0	17.0	15.0	19.0	---	20.0
15	17.0	11.0	5.0	5.0	12.5	12.0	18.0	17.0	15.0	19.0	---	19.0
16	18.0	9.5	7.0	7.0	10.0	11.0	20.0	21.0	15.0	19.0	---	---
17	18.5	9.0	6.5	8.0	10.0	12.0	20.0	22.0	16.0	18.5	---	18.0
18	17.0	10.0	6.5	10.0	7.5	12.5	21.0	19.0	19.0	18.0	25.0	18.0
19	17.0	9.0	8.5	10.0	8.0	13.0	23.0	22.0	18.0	17.0	24.0	18.0
20	16.0	11.0	9.5	9.0	9.0	13.0	21.0	20.0	15.0	15.0	23.0	---
21	18.5	10.5	6.5	8.0	10.0	14.0	20.0	18.0	16.5	17.0	26.0	---
22	18.5	10.0	6.5	7.0	11.0	14.0	---	19.0	20.0	18.5	---	---
23	15.5	---	6.0	7.0	10.0	13.0	18.0	19.0	19.0	19.0	23.0	20.0
24	14.5	13.0	6.0	6.0	11.0	13.5	20.0	21.0	19.0	19.0	25.0	20.0
25	15.0	12.0	5.0	7.0	10.0	14.0	19.0	18.0	19.5	19.0	24.0	19.0
26	15.0	11.5	6.0	9.0	10.0	14.0	20.5	17.0	20.0	18.0	24.5	18.0
27	12.0	9.5	4.0	9.0	9.5	15.0	20.0	21.0	24.0	20.0	22.0	---
28	14.5	7.0	9.5	7.0	10.0	16.0	20.0	20.0	20.0	20.5	23.0	---
29	15.5	7.0	8.0	6.0	---	16.0	---	20.0	20.0	21.0	24.0	---
30	16.0	8.5	8.5	6.5	---	16.0	17.0	22.0	19.0	20.0	25.0	---
31	16.0	---	5.5	5.0	---	15.0	---	21.0	---	19.0	24.0	---
MEAN	18.0	11.5	6.0	7.0	9.0	12.5	17.5	19.0	18.5	19.0	23.0	21.0

WTR YR 1979 MEAN 15.0 MAX 26.0 MIN .5

08477110 MIMBRES RIVER AT MIMBRES, NM
(National stream-quality accounting network station)

LOCATION.--Lat 32°51'17", long 107°58'23", in NW¼SW¼ sec.3, T.16 S., R.11 W., Grant County, Hydrologic Unit 13030202, on left bank 100 ft (30 m) downstream from Willow Springs Canyon, 0.3 mi (0.5 km) east of Mimbres, 1.1 mi (1.8 km) downstream from Shepard Canyon, 2.5 mi (4.0 km) downstream from Bear Canyon and at mile 73.1 (117.6 km).

DRAINAGE AREA.--184 mi² (477 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1978 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,920 ft (1,804 m), from topographic map.

REMARKS.--Water-discharge records good except those for December, which are poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,800 ft³/s (51.0 m³/s) Dec. 18, 1978, gage height, 9.00 ft (2.743 m) from floodmarks, from rating curve extended above 450 ft³/s (13 m³/s) on basis of slope-area measurement of peak flow; minimum, 0.26 ft³/s (0.007 m³/s) Aug. 4, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 250 ft³/s (7.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 25	0900	1340	37.9	8.42	2.566
Dec. 18	Unknown	a*1800	51.0	9.00	2.743
Jan. 18	0330	1240	35.1	5.98	1.823

a from rating curve extended above 450 ft³/s (12.7 m³/s) on basis of slope-area measurement of peak flow.

Minimum discharge, 1.0 ft³/s (0.03 m³/s) Sept. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.2	4.0	19	90	35	57	45	49	15	8.1	9.8	3.2
2	2.3	3.7	16	70	37	56	44	46	15	7.6	9.7	3.2
3	2.5	3.9	15	50	36	53	43	43	16	7.7	9.7	4.1
4	4.2	3.6	14	45	35	51	41	40	18	7.4	9.3	3.7
5	3.6	3.5	14	40	40	49	39	38	21	6.4	8.6	3.9
6	3.2	3.4	15	46	39	48	37	34	20	4.0	7.2	4.1
7	3.2	3.6	15	50	39	47	37	32	19	2.7	6.0	3.6
8	3.0	3.4	14	46	40	52	39	30	17	3.4	6.1	3.7
9	3.0	3.4	14	40	43	62	42	29	16	4.5	6.8	3.3
10	2.7	3.4	14	35	53	69	49	28	15	8.7	7.3	3.2
11	2.7	4.0	14	32	64	72	51	27	15	9.5	8.5	2.4
12	2.7	5.1	14	30	71	70	48	25	13	10	9.3	2.3
13	3.1	4.3	14	30	133	68	45	25	12	12	9.4	1.4
14	3.0	4.8	14	32	165	69	45	24	11	13	13	1.2
15	2.5	4.5	13	27	202	71	47	22	9.6	11	17	4.3
16	1.8	4.3	13	36	245	72	51	19	9.0	9.8	15	5.0
17	2.0	4.1	13	65	212	73	60	22	8.5	7.6	12	4.7
18	2.0	3.9	580	537	192	67	69	21	8.6	9.1	18	4.5
19	1.9	3.8	1250	174	154	61	76	20	10	8.9	16	4.4
20	1.8	2.3	600	96	137	56	80	21	10	8.7	12	4.2
21	2.4	1.3	470	71	122	54	80	21	8.9	8.8	10	3.0
22	2.3	1.3	250	62	99	52	82	18	7.2	9.1	8.8	2.3
23	2.8	1.4	180	52	86	49	78	16	5.9	8.2	8.8	3.6
24	2.9	141	130	46	76	47	78	17	6.8	7.7	8.3	2.4
25	2.8	737	100	62	68	45	75	18	6.8	7.5	8.1	1.7
26	2.8	177	85	60	65	43	67	23	7.3	7.5	7.5	1.3
27	2.7	83	70	58	61	43	63	20	6.8	7.2	7.3	2.1
28	2.7	46	60	46	58	45	59	19	7.1	7.0	7.0	1.3
29	2.7	30	52	40	---	49	57	18	7.6	6.7	7.0	1.6
30	3.2	22	54	39	---	48	54	15	7.9	6.5	5.7	3.4
31	3.7	---	100	36	---	46	---	14	---	10	5.4	---
TOTAL	84.4	1317.0	4226	2143	2607	1744	1681	794	351.0	246.3	294.6	93.1
MEAN	2.72	43.9	136	69.1	93.1	56.3	56.0	25.6	11.7	7.95	9.50	3.10
MAX	4.2	737	1250	537	245	73	82	49	21	13	18	5.0
MIN	1.8	1.3	13	27	35	43	37	14	5.9	2.7	5.4	1.2
AC-FT	167	2610	8380	4250	5170	3460	3330	1570	696	489	584	185

WTR YR 1979 TOTAL 15581.4 MEAN 42.7 MAX 1250 MIN 1.2 AC-FT 30910

08477110 MIMBRES RIVER AT MIMBRES, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT											
12...	1812	2.5	278	8.4	23.0	19.5	1.9	6.8	120	0	34
NOV											
03...	1616	4.2	275	8.5	8.0	13.5	.30	8.4	110	0	33
DEC											
06...	1516	15	220	7.5	.0	8.0	2.3	8.9	100	20	31
JAN											
11...	1511	40	221	7.7	13.5	11.5	9.3	8.3	85	19	24
FEB											
15...	1551	174	179	7.7	17.0	11.0	26	8.8	73	28	21
MAR											
22...	1616	50	212	7.9	10.5	12.0	3.3	8.9	80	32	23
APR											
26...	1826	70	187	7.9	20.0	15.0	60	8.0	61	22	17
MAY											
22...	1255	24	219	8.4	24.0	16.0	6.1	8.7	88	15	26
JUN											
13...	1313	19	240	8.3	26.5	21.5	3.2	8.3	95	5	28
JUL											
26...	1030	7.5	260	8.5	24.0	17.5	1.0	8.6	110	0	30
AUG											
15...	1230	11	240	8.0	17.0	18.5	52	7.3	86	1	26
SEP											
20...	1000	4.2	260	8.5	16.5	13.5	2.6	9.8	110	1	33

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT											
12...	7.4	13	.5	3.1	130	14	3.4	.3	54	206	207
NOV											
03...	7.2	13	.5	3.1	120	11	6.3	.3	55	193	201
DEC											
06...	6.4	9.9	.4	3.0	84	27	3.8	.2	44	178	176
JAN											
11...	6.0	9.1	.4	2.5	66	29	3.3	.2	42	171	156
FEB											
15...	4.9	6.6	.3	1.8	45	41	3.9	.1	34	140	140
MAR											
22...	5.4	7.1	.3	2.1	48	30	3.0	.2	37	156	137
APR											
26...	4.6	6.0	.3	2.1	39	27	2.4	.2	40	135	123
MAY											
22...	5.7	8.4	.4	2.4	73	23	3.3	.2	41	162	154
JUN											
13...	6.0	9.8	.4	2.6	90	24	3.4	.3	43	178	171
JUL											
26...	7.3	12	.5	3.0	110	12	3.7	.3	52	202	186
AUG											
15...	5.2	9.0	.4	3.1	85	21	3.0	.2	42	184	161
SEP											
20...	6.9	12	.5	2.9	110	22	3.2	.3	51	199	197

08477110 MIMBRES RIVER AT MIMBRES, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT 12...	.01	--	.00	.41	.42	.070	--	--	2.7	--	--
NOV 03...	.01	--	.01	.14	.16	.070	10	0	--	1.6	.5
DEC 06...	.54	--	.01	.10	.65	.120	--	--	3.1	--	--
JAN 11...	.61	--	.00	.26	.87	.130	--	--	4.4	--	--
FEB 15...	.17	--	.03	.56	.76	.200	90	20	--	8.1	--
MAR 22...	.15	--	.02	.42	.59	.100	--	--	11	--	--
APR 26...	.13	--	.01	.49	.63	.210	--	--	8.0	--	--
MAY 22...	.14	--	.04	.05	.23	.080	30	10	--	4.3	.4
JUN 13...	.09	--	.03	.06	.18	.090	--	--	5.4	--	--
JUL 26...	.00	--	.00	.11	.11	.150	--	--	3.2	--	--
AUG 15...	.17	--	.01	.50	.68	.220	60	10	--	6.7	.7
SEP 20...	.00	.00	.01	.39	.40	.050	--	--	2.6	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
NOV 03...	1616	1	1	0	0	1	2	0	0
FEB 15...	1551	1	1	0	0	0	1	10	0
MAY 22...	1255	3	2	0	0	0	0	10	0
AUG 15...	1230	1	1	0	40	0	<1	20	0

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
NOV 03...	1	0	5	0	50	10	3	12	0
FEB 15...	2	1	16	2	1700	90	6	7	120
MAY 22...	0	2	4	3	360	30	5	1	20
AUG 15...	0	<3	10	1	2400	60	6	0	110

08477110 MIMBRES RIVER AT MIMBRES, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
NOV									
03...	0	.0	.0	0	0	0	0	10	0
FEB									
15...	20	.3	.0	0	0	1	0	40	10
MAY									
22...	10	.0	.1	0	0	0	0	10	0
AUG									
15...	10	2.6	1.4	0	0	0	0	10	<3

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
12...	1812	41	160
NOV			
03...	1616	57	120
DEC			
06...	1516	93	99
JAN			
11...	1511	88	96
FEB			
15...	1551	3	45
MAR			
22...	1616	3	10
APR			
26...	1826	100	2600
MAY			
22...	1255	13	72
JUN			
13...	1313	15	69
JUL			
26...	1030	120	74
AUG			
15...	1230	1450	2000
SEP			
20...	1000	120	120

08477110 MIMBRES RIVER AT MIMBRES, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 3,78	MAR 22,79	MAY 22,79	JUL 26,79	AUG 15,79
TIME	1616	1616	1255	1030	1230
TOTAL CELLS/ML	350	8300	220	390	410
DIVERSITY: DIVISION	1.3	1.1	0.0	0.8	0.8
.CLASS	1.3	1.1	0.0	0.8	0.8
..ORDER	1.3	1.1	0.0	1.6	0.8
...FAMILY	2.0	1.5	1.9	2.3	1.5
....GENUS	2.2	1.5	1.9	2.3	1.5

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....CHODATELLA	--	-	--	-	--	-	--	-	100#	25
....OOCYSTIS	--	-	220	3	--	-	--	-	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	220	3	--	-	100#	27	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	28	8	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	110	1	--	-	120#	30	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	42	12	--	-	--	-	--	-	--	-
....COCCONEIS	42	12	--	-	--	-	13	3	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	13	6	13	3	--	-
...FRAGILARIACEAE										
....FRAGILARIA	--	-	--	-	--	-	13	3	--	-
....SYNEDRA	--	-	--	-	78#	35	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	14	4	280	3	--	-	26	7	--	-
...NAVICULACEAE										
....NAVICULA	83#	24	670	8	13	6	--	-	210#	50
...NITZSCHIACEAE										
....NITZSCHIA	--	-	830	10	90#	41	100#	27	100#	25
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	26	12	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....COCCOCHLORIS	--	-	5900#	72	--	-	--	-	--	-
..HORMOGONALES										
...OSCILLATORIACEAE										
....LYNGBYA	140#	40	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08477110 MIMBRES RIVER AT MIMBRES, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

IDENTIFICATION OF PHYTOPLANKTON

DATE	SEP 20,79
TIME	1000
TOTAL CELLS/ML	290
DIVERSITY: DIVISION	0.0
.CLASS	0.0
..ORDER	0.3
...FAMILY	1.9
....GENUS	2.1

ORGANISM	CELLS /ML	PER-CENT
CHRYSOPHYTA		
.BACILLARIOPHYCEAE		
..CENTRALES		
...COSCINODISCACEAE		
....CYCLOTELLA	14	5
..PENNALES		
...ACHNANTHACEAE		
....ACHNANTHES	29	10
....COCCONEIS	29	10
...GOMPHONEMATACEAE		
....GOMPHONEMA	14	5
...NAVICULACEAE		
....NAVICULA	110#	40
...NITZSCHIACEAE		
....NITZSCHIA	86#	30

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PERIPHYTON

DATE	TIME	LENGTH OF EXPO-SURE (DAYS) (00022)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	SAMPLING METHOD
OCT 12...	1812	29	2.20	2.00	1.23	2.93	--	Polyethylene strip
MAR 22...	1616	35	.710	.550	.690	.450	--	"
JUL 26...	1030	44	2.99	1.65	7.82	4.21	171	"
AUG 15...	1230	20	.000	.000	.000	.000	--	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT 12...	1812	2.5	19.5	6	.04	98
NOV 03...	1616	4.2	13.5	3	.03	76
DEC 06...	1516	15	8.0	18	.73	59
JAN 11...	1511	40	11.5	92	9.9	33
FEB 15...	1551	174	11.0	383	180	29
MAR 22...	1616	50	12.0	9	1.2	69
APR 26...	1826	70	15.0	143	27	92
MAY 22...	1255	24	16.0	15	.97	97
JUN 13...	1313	19	21.5	12	.62	92
JUL 26...	1200	7.5	17.5	2	.04	96
AUG 15...	1230	11	18.5	100	3.0	98
SEP 20...	1000	4.2	13.5	12	.14	95

08481500 RIO TULAROSA NEAR BENT, NM
(National stream-quality accounting network station)

LOCATION.--Lat 33°08'41", long 105°53'50", in SE¼NW¼ sec.32, T.13 S., R.11 E., Otero County, Hydrologic Unit 13050003, on right bank 50 ft (15 m) downstream from old U.S. Highway 70 bridge, 2.6 mi (4.2 km) west of Bent, and 8.5 mi (13.7 km) northeast of Tularosa, and at mile 19.4 (31.2 km).

DRAINAGE AREA.--120 mi² (310 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1947 to current year.

REVISED RECORDS.--WSP 1312: 1949(M).

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,450 ft (1,660 m), from topographic map.

REMARKS.--Water-discharge records poor. Diversion for irrigation of about 1,000 acres (4.0 km²) 1959 determination, above station.

AVERAGE DISCHARGE.--31 years, (1949-79), 9.80 ft³/s (0.278 m³/s), 7,100 acre-ft/yr (8.75 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum dischage 4,280 ft³/s (121 m³/s) June 18, 1965, gage height, 5.02 ft (1.530 m), from rating curve extended above 160 ft³/s (4.53 m³/s) on basis of slope-area measurement of peak flow; no flow May 14, 1955, result of unusual regulation.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood probably occurred Sept. 3, 1938, when a peak of 9,640 ft³/s (273 m³/s) was computed for station approximately 6 mi (10 km) downstream near Tularosa. Another flood may have occurred July 2, 1914.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 125 ft³/s (3.54 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
July 25	1615	197	5.58	2.79	0.850
Aug. 15	1300	259	7.33	2.86	0.871
Aug. 17	0530	*624	17.7	3.16	0.963

Minimum discharge, 3.0 ft³/s (0.085 m³/s) Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	9.7	9.4	15	17	12	16	14	14	13	11	12	14
2	11	9.2	15	16	12	15	12	11	16	11	12	14
3	9.8	13	15	16	12	15	14	11	13	11	12	14
4	11	14	14	16	13	15	17	11	15	13	12	14
5	11	14	14	15	13	14	17	12	16	12	12	15
6	11	13	14	16	13	13	15	10	15	12	11	16
7	11	14	14	23	13	13	17	10	15	11	11	16
8	10	14	14	22	13	12	15	12	15	11	8.9	15
9	10	13	15	20	13	11	16	15	14	9.9	11	14
10	9.8	13	15	20	13	10	17	15	13	8.9	11	15
11	9.9	23	15	21	13	9.6	19	15	13	9.7	9.9	14
12	9.6	14	15	20	13	9.5	20	16	12	10	6.7	16
13	9.5	13	15	20	13	9.0	20	16	11	11	11	15
14	9.1	12	15	19	14	12	20	15	12	11	9.9	16
15	8.5	12	14	18	15	13	19	13	11	8.0	18	17
16	9.0	13	15	18	16	15	16	15	11	8.6	14	15
17	9.1	15	15	17	15	16	16	19	8.5	8.6	47	16
18	9.6	17	16	18	15	15	16	15	9.0	11	14	16
19	9.8	16	20	15	15	15	15	15	10	9.9	14	15
20	9.9	16	16	16	15	16	14	25	12	9.6	14	15
21	10	16	15	15	15	17	13	26	14	10	14	15
22	8.9	15	15	15	15	16	12	19	15	9.8	13	15
23	11	16	15	15	14	16	12	18	15	9.4	13	13
24	11	16	16	15	14	16	14	17	13	9.1	13	14
25	11	16	16	15	14	17	18	16	11	16	13	14
26	14	16	17	14	13	12	16	17	10	12	12	10
27	12	15	17	14	13	15	14	14	11	12	12	15
28	9.9	15	17	13	15	14	14	14	12	12	12	15
29	10	15	17	14	---	13	13	14	14	10	12	15
30	10	15	17	13	---	14	11	14	14	11	13	15
31	9.6	---	21	13	---	14	---	15	---	11	15	---
TOTAL	315.7	432.6	484	519	384	428.1	466	469	383.5	330.5	413.4	443
MEAN	10.2	14.4	15.6	16.7	13.7	13.8	15.5	15.1	12.8	10.7	13.3	14.8
MAX	14	23	21	23	16	17	20	26	16	16	47	17
MIN	8.5	9.2	14	13	12	9.0	11	10	8.5	8.0	6.7	10
AC-FT	626	858	960	1030	762	849	924	930	761	656	820	879

CAL YR 1978 TOTAL 4330.6 MEAN 11.9 MAX 61 MIN 4.1 AC-FT 8590
WTR YR 1979 TOTAL 5068.8 MEAN 13.9 MAX 47 MIN 6.7 AC-FT 10050

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.—Water years 1963 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT 26...	1200	11	1420	7.8	9.5	9.0	30	9.3	55	860	--	250
NOV 17...	1100	14	1510	7.8	10.5	8.0	22	9.8	10	900	680	260
DEC 12...	1300	15	1400	8.1	7.0	7.0	16	9.6	25	730	560	200
JAN 25...	1200	15	1480	8.5	5.0	6.0	33	9.9	21	740	530	200
FEB 22...	1100	15	1480	8.3	6.5	7.0	30	10.0	11	800	580	220
MAR 22...	1100	16	1380	8.3	7.0	7.0	7.4	9.7	14	600	520	210
APR 18...	0900	18	1400	8.5	17.5	10.5	1.0	9.1	12	490	300	97
MAY 17...	1200	19	1360	8.3	17.5	17.0	24	7.9	24	780	610	210
JUN 19...	1200	8.9	1420	8.3	23.0	18.0	6.5	7.4	12	730	530	200
JUL 17...	1000	6.7	1300	8.3	25.0	17.5	10	7.7	10	690	510	190
AUG 08...	1110	8.9	1300	8.1	27.0	19.0	46	8.1	14	630	440	170
SEP 12...	1145	3.8	1280	8.1	29.5	17.0	23	8.0	19	700	510	190

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 26...	57	42	.6	2.4	220	600	70	.4	14	1270	--	.94
NOV 17...	60	44	.6	1.6	220	620	73	.4	14	1210	--	.65
DEC 12...	57	43	.7	1.7	170	560	64	.4	14	1130	1050	.68
JAN 25...	58	48	.8	1.5	210	530	65	.4	13	1130	1050	.90
FEB 22...	60	48	.7	1.2	220	530	64	.4	13	1120	1070	.83
MAR 22...	19	48	.9	1.3	87	520	59	.5	13	1040	926	.71
APR 18...	60	43	.8	1.1	190	530	90	.5	13	1060	951	.57
MAY 17...	62	45	.7	1.8	170	520	64	.5	12	1080	1020	.59
JUN 19...	57	46	.7	1.4	200	530	76	.5	15	1110	1050	1.6
JUL 17...	53	41	.7	1.5	180	490	54	.4	14	1040	955	.66
AUG 08...	50	35	.6	1.6	190	510	54	.4	14	965	949	.66
SEP 12...	54	43	.7	1.6	190	500	50	.4	15	986	971	.76

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
OCT												
26...	.84	.01	.94	1.9	.300	.00	80	20	—	9.5	2.7	>5.0
NOV												
17...	.67	.01	.45	1.1	.050	.00	90	0	—	2.9	2.1	1.1
DEC												
12...	.72	.01	.24	.93	.060	.00	80	10	40	—	1.7	—
JAN												
25...	.86	.01	.53	1.4	.070	.08	60	10	—	6.1	2.3	2.0
FEB												
22...	.88	.03	.35	1.2	.010	.02	60	30	—	4.0	1.8	1.6
MAR												
22...	.68	.03	.13	.87	.020	.01	50	20	30	—	1.9	1.1
APR												
18...	.54	.02	.33	.92	.000	.02	70	10	—	2.9	3.4	5.8
MAY												
17...	.61	.05	.25	.89	.010	.00	1300	10	—	5.0	5.7	1.8
JUN												
19...	1.5	.06	.25	1.9	.010	.03	100	0	20	—	4.1	—
JUL												
17...	.66	.01	1.1	1.8	.020	.01	30	10	—	4.8	2.5	—
AUG												
08...	.00	.01	.24	.91	.070	.00	40	80	—	3.4	6.6	.4
SEP												
12...	.69	.03	.38	1.2	.040	.01	0	<10	20	—	.8	.9

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
DEC										
12...	1300	1	0	0	0	80	0	<1	0	0
MAR										
22...	1100	0	0	0	0	50	0	2	0	0
JUN										
19...	1200	0	0	0	30	100	0	<1	10	10
SEP										
12...	1145	1	1	100	30	0	0	<1	10	10

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
DEC									
12...	0	<3	3	0	700	10	3	3	60
MAR									
22...	0	0	6	0	660	20	11	15	60
JUN									
19...	2	<3	5	1	600	0	15	0	40
SEP									
12...	0	<3	2	0	1900	10	3	0	80

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC									
12...	40	.0	.0	2	2	0	0	10	<3
MAR									
22...	30	.0	.0	1	1	0	0	30	20
JUN									
19...	20	.1	.1	3	3	0	0	20	3
SEP									
12...	20	.8	.3	1	2	0	0	0	<3

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
OCT									
26...	1200	<17	30	5.0	18	<4.5	17	.12	4.6
APR									
18...	0900	<19	<6.8	<6.8	.6	<6.0	.6	.06	3.8

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
26...	1200	680	3200
NOV			
17...	1100	24	150
DEC			
12...	1300	38	120
JAN			
25...	1200	140	260
FEB			
22...	1100	51	59
MAR			
22...	1100	12	63
APR			
18...	0900	77	56
MAY			
17...	1200	49	310
JUN			
19...	1200	51	1600
JUL			
17...	1000	130	1600
AUG			
08...	1110	77	1000
SEP			
12...	1145	130	310

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 17,78		MAR 22,79		MAY 17,79		JUN 19,79	
TIME	1100		1100		1200		1200	
TOTAL CELLS/ML	290		770		620		90	
DIVERSITY: DIVISION	1.0		0.1		0.0		0.6	
.CLASS	1.0		0.1		0.0		0.6	
..ORDER	1.0		0.2		0.0		0.6	
...FAMILY	1.1		1.7		1.6		2.0	
....GENUS	1.1		1.7		1.6		2.2	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	6	1	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	14	5	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	6	1	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	14	5	--	-	90	15	13	14
....COCCONEIS	--	-	--	-	--	-	13	14
...CYMBELLACEAE								
....CYMBELLA	--	-	--	-	26	4	--	-
...DIATOMACEAE								
....DIATOMA	--	-	6	1	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	38	5	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	19	2	--	-	--	-
...NAVICULACEAE								
....NAVICULA	41	14	350#	46	300#	48	26#	29
...NITZSCHIACEAE								
....NITZSCHIA	--	-	19	2	210#	33	26#	29
...SURIRELLACEAE								
....SURIRELLA	--	-	320#	41	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	13	14
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-
...RIVULARIACEAE								
....RAPHIDIOPSIS	220#	76	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	6	1	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

IDENTIFICATION OF PHYTOPLANKTON

DATE	JUL 17,79		AUG 8,79		SEP 12,79	
TIME	1000		1110		1145	
TOTAL CELLS/ML	1100		39		40	
DIVERSITY: DIVISION	0.4		0.0		0.0	
.CLASS	0.4		0.0		0.0	
..ORDER	0.4		0.0		0.0	
...FAMILY	0.6		0.0		0.5	
....GENUS	0.6		0.0		0.5	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)						
.CHLOROPHYCEAE						
..CHLOROCOCCALES						
...OOCYSTACEAE						
....ANKISTRODESMUS	--	-	--	-	--	-
..VOLVOCALES						
...CHLAMYDOMONADACEAE						
....CHLAMYDOMONAS	--	-	--	-	--	-
CHRYSOPHYTA						
.BACILLARIOPHYCEAE						
..CENTRALES						
...COSCINODISCACEAE						
....CYCLOTELLA	--	-	--	-	--	-
..PENNALES						
...ACHNANTHACEAE						
....ACHNANTHES	13	1	--	-	--	-
....COCCONEIS	--	-	--	-	--	-
...CYMBELLACEAE						
....CYMBELLA	--	-	--	-	--	-
...DIATOMACEAE						
....DIATOMA	--	-	--	-	--	-
...FRAGILARIACEAE						
....FRAGILARIA	--	-	--	-	--	-
...GOMPHONEMATACEAE						
....GOMPHONEMA	26	2	--	-	--	-
...NAVICULACEAE						
....NAVICULA	26	2	--	-	35#	88
...NITZSCHIACEAE						
....NITZSCHIA	26	2	39#	100	5	13
...SURIRELLACEAE						
....SURIRELLA	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)						
.CRYPTOPHYCEAE						
..CRYPTOMONADALES						
...CRYPTOMONADACEAE						
....CRYPTOMONAS	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)						
.CYANOPHYCEAE						
..HORMOGONALES						
...OSCILLATORIACEAE						
....OSCILLATORIA	1000#	92	--	-	--	-
...RIVULARIACEAE						
....RAPHIDIOPSIS	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)						
.EUGLENOPHYCEAE						
..EUGLENALES						
...EUGLENACEAE						
....TRACHELOMONAS	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

08481500 RIO TULAROSA NEAR BENT, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PERIPHYTON

DATE	TIME	LENGTH OF EXPOSURE (DAYS) (00022)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70958)	SAMPLING METHODS
DEC							
12...	1300	27	9.21	8.90	.210	.000	Polyethylene strip

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
26...	1200	11	9.0	703	21	73
NOV						
17...	1100	14	8.0	187	7.1	32
DEC						
12...	1300	15	7.0	83	3.4	39
JAN						
25...	1200	15	6.0	152	6.2	58
FEB						
22...	1100	15	7.0	83	3.4	53
MAR						
22...	1100	16	7.0	33	1.4	68
APR						
18...	0900	18	10.5	33	1.6	68
MAY						
17...	1200	19	17.0	129	6.6	52
JUN						
19...	1200	8.9	18.0	42	1.0	65
JUL						
17...	1000	6.7	17.5	69	1.2	71
AUG						
08...	1110	8.9	19.0	105	2.5	81
SEP						
12...	1145	3.8	17.0	92	.94	81

COLORADO RIVER BASIN

SAN JUAN RIVER BASIN

09346400 SAN JUAN RIVER NEAR CARRACAS, CO

LOCATION.--Lat 37°00'49", long 107°18'42", in SE$\frac{1}{4}$SW$\frac{1}{4}$ sec.17, T.32 N., R.4 W., Archuleta County, Hydrologic Unit 14080101, on right bank just upstream from flow line of Navajo Reservoir, 3 mi (5 km) northwest of Carracas, 7.2 mi (11.6 km) upstream from Piedra River, and at mile 332.8 (535.5 km).

DRAINAGE AREA.--1,230 mi^2 (3,190 km^2), approximately.

PERIOD OF RECORD.--October 1961 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,090 ft (1,856 m), from river-profile map.

REMARKS.--Records fair except those for winter period, which are poor. Diversions for irrigation of about 11,000 acres (45 km^2) above station. Highwater diversions above station into Rio Grande Basin through Azotea tunnel (08284160) began in March 1971. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--9 years (water years 1962-70), 632 ft^3/s (17.90 m^3/s), 457,900 acre-ft/yr (565 hm^3/yr) prior to completion of Azotea tunnel.

9 years (water years 1971-79), 559 ft^3/s (15.83 m^3/s), 405,000 acre-ft/yr (499 hm^3/yr) since completion of Azotea tunnel.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,730 ft^3/s (276 m^3/s) Sept. 6, 1970, gage height, 8.34 ft (2.542 m), from rating curve extended above 6,000 ft^3/s (170 m^3/s) on basis of slope-area measurement of peak flow; minimum, about 5 ft^3/s (0.1 m^3/s) Dec. 10, 1961, result of freezeup.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911; June 29, 1927.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 2,500 ft^3/s (71 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 19	0315	*7,630	216	7.40	2.256	June 7	0930	6,020	170	6.64	2.024
May 27	0545	6,770	192	6.96	2.121	June 16	1015	5,410	153	6.38	1.945

Minimum daily, 63 ft^3/s (1.78 m^3/s) Oct. 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	89	128	140	120	140	180	913	2450	3730	3250	507	210
2	86	123	152	110	142	190	747	2230	3180	3030	467	196
3	83	230	122	110	150	200	721	2050	3580	2810	438	191
4	80	222	88	110	150	180	714	1900	3850	2720	416	182
5	75	195	111	120	130	200	929	1970	3800	2350	395	176
6	63	172	110	125	130	250	1450	2200	4650	2250	373	167
7	64	151	105	138	135	300	2110	2480	5250	2240	361	157
8	69	138	105	140	130	350	2740	2270	4590	2280	356	155
9	79	138	90	152	122	400	2610	2000	4140	2240	346	150
10	79	138	100	150	124	450	2430	1760	2880	2040	329	144
11	78	140	110	140	128	500	1620	1570	2600	1920	363	137
12	78	236	120	145	130	700	1230	1460	2980	1820	418	117
13	79	240	130	150	135	900	1340	1380	3670	1750	434	104
14	79	181	120	140	140	1200	1570	1510	4390	1690	391	103
15	76	171	110	140	150	1500	2550	1780	4390	1680	470	120
16	77	161	110	145	155	1230	3830	1950	4630	1580	910	130
17	76	147	120	138	160	1070	4810	1990	3870	1520	769	116
18	75	134	140	142	160	845	5200	2110	3320	1490	600	111
19	76	128	130	140	158	708	5180	2810	2720	1340	527	102
20	75	125	120	135	170	731	3430	3760	2310	1270	470	102
21	82	135	110	130	165	884	2720	3470	2340	1260	422	103
22	105	143	110	142	160	749	2920	3970	2580	1210	364	108
23	146	150	110	155	158	738	3210	4460	2900	1160	338	110
24	162	145	110	140	150	891	3300	4320	2950	1070	308	106
25	257	250	110	150	150	1090	3060	4240	2800	1020	272	99
26	227	225	100	150	160	1240	2880	4980	3060	977	259	95
27	182	176	110	152	170	1210	2700	5610	3210	904	260	98
28	158	155	120	150	180	1140	2900	5090	3460	852	252	98
29	152	130	130	140	---	1430	3200	5120	3350	876	232	103
30	136	143	130	140	---	1130	2700	5040	3190	807	225	100
31	130	---	120	138	---	1200	---	4110	---	580	230	---
TOTAL	3273	4950	3593	4277	4132	23786	75714	92040	104370	51986	12502	3890
MEAN	106	165	116	138	148	767	2524	2969	3479	1677	403	130
MAX	257	250	152	155	180	1500	5200	5610	5250	3250	910	210
MIN	63	123	88	110	122	180	714	1380	2310	580	225	95
AC-FT	6490	9820	7130	8480	8200	47180	150200	182600	207000	103100	24800	7720

CAL YR 1978 TOTAL 171146 MEAN 469 MAX 2500 MIN 31 AC-FT 339500
WTR YR 1979 TOTAL 384513 MEAN 1053 MAX 5610 MIN 63 AC-FT 762700

09349800 PIEDRA RIVER NEAR ARBOLES, CO

LOCATION.--Lat 37°05'18", long 107°23'50", in NE¼SW¼ sec.21, T.33 N., R.5 W., Archuleta County, Hydrologic Unit 14080102, on left bank 3 mi (5 km) downstream from Ignacio Creek, 5.2 mi (8.4 km) northeast of Arboles Post Office, and 8 mi (13 km) upstream from mouth.

DRAINAGE AREA.--629 mi² (1,629 km²).

PERIOD OF RECORD.--August 1962 to current year. Gage operated 1895-1899, 1910-1927 at a site 7.5 mi (12.1 km) downstream at altitude 6,000 ft (1,830 m). Low flow records probably not equivalent.

GAGE.--Water-stage recorder. Datum of gage is 6,147.52 ft (1,873.764 m) National Geodetic Vertical Datum of 1929, from Colorado State Highway Department bench mark.

REMARKS.--Records good except those for winter period which are poor. Diversions for irrigation of about 2,800 acres (11 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--17 years, 365 ft³/s (10.34 m³/s), 264,400 acre-ft/yr (326 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,370 ft³/s (237 m³/s) Sept. 6, 1970, gage height, 6.38 ft (1.945 m) recorded, 7.55 ft (2.301 m) from floodmarks, from rating curve extended above 4,400 ft³/s (125 m³/s) on basis of slope-area measurement of peak flow; minimum, 11 ft³/s (0.31 m³/s) Dec. 9, 1963, Oct. 1, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred Sept. 5 or 6, 1909; Oct. 5, 1911.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,500 ft³/s (42 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 24	0230	5,380	152	5.42	1.652	June 7	0715	3,830	108	4.86	1.481
May 27	0445	*5,890	167	5.69	1.734	June 14	0745	3,360	95.2	4.59	1.399

Minimum daily, 35 ft³/s (0.99 m³/s) Oct. 19, 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	43	68	76	56	68	156	489	2920	2970	2060	308	150
2	38	67	83	54	68	203	427	3070	2640	2010	279	145
3	38	99	76	52	70	190	404	2600	2610	1850	245	140
4	38	120	80	54	70	177	386	2440	2750	1630	225	135
5	38	95	81	58	62	173	465	2750	2870	1440	210	130
6	37	94	80	60	60	189	688	3010	3330	1360	203	120
7	36	85	65	64	64	220	1050	3350	3610	1390	224	115
8	36	80	54	64	60	308	1310	2950	3370	1440	230	110
9	37	77	50	70	60	360	1380	2360	2790	1400	223	100
10	37	75	54	72	61	272	1410	1900	2250	1300	217	96
11	38	100	56	66	62	266	1030	1490	2170	1240	216	94
12	38	325	58	68	63	309	803	1290	2470	1190	333	91
13	35	215	60	70	64	360	725	1250	2920	1130	352	89
14	36	145	64	66	66	364	892	1560	3170	1160	278	86
15	36	119	64	66	70	429	1420	2040	3060	1280	358	90
16	36	106	62	67	73	462	2130	2530	3070	1190	859	93
17	36	96	60	64	76	402	2800	2750	2790	1140	780	91
18	36	85	65	66	77	408	3190	2610	2460	1120	655	88
19	35	83	70	68	80	387	3580	3090	1970	1030	667	85
20	35	82	60	65	90	396	3080	3410	1690	1010	541	84
21	39	82	56	62	100	438	2990	3230	1750	950	437	83
22	52	89	56	66	110	391	3330	3520	1970	864	363	83
23	71	86	56	72	120	408	4040	3580	2160	754	321	80
24	83	84	56	66	110	450	4420	3400	2220	655	287	74
25	123	132	56	68	115	521	3930	3310	2130	580	270	70
26	106	105	54	71	132	594	3990	4030	2090	524	235	67
27	83	97	56	72	135	579	3320	4300	2120	485	220	64
28	76	83	58	70	132	554	3450	4630	2190	425	200	66
29	73	82	62	70	---	735	3650	4160	2170	433	175	65
30	71	79	60	67	---	569	2990	3900	2030	474	165	63
31	70	---	57	68	---	593	---	3290	---	359	160	---
TOTAL	1586	3135	1945	2022	2318	11863	63769	90720	75790	33873	10236	2847
MEAN	51.2	105	62.7	65.2	82.8	383	2126	2926	2526	1093	330	94.9
MAX	123	325	83	72	135	735	4420	4630	3610	2060	859	150
MIN	35	67	50	52	60	156	386	1250	1690	359	160	63
AC-FT	3150	6220	3860	4010	4600	23530	126500	179900	150300	67190	20300	5650

CAL YR 1978 TOTAL 117296 MEAN 321 MAX 2070 MIN 25 AC-FT 232700
WTR YR 1979 TOTAL 300104 MEAN 822 MAX 4630 MIN 35 AC-FT 595300

09354500 LOS PINOS RIVER AT LA BOCA, CO

LOCATION.--Lat 37°00'34", long 107°35'56", in NE¼NW¼ sec. 22, T.32 N., R.7 W., La Plata County, Hydrologic Unit 14080101, on downstream end of right abutment of the Denver & Rio Grande Western Railroad Co. bridge, at southeast edge of La Boca, 0.1 mi (0.2 km) upstream from Spring Creek, and 13 mi (21 km) upstream from mouth.

DRAINAGE AREA.--510 mi² (1,320 km²), approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733.

GAGE.--Water-stage recorder. Datum of gage is 6,143.58 ft (1,872.563 m) National Geodetic Vertical Datum of 1929.

REMARKS.--Records good except those for winter period, which are poor. Flow regulated by Vallecito Reservoir (station 09353000) 24 mi (39 km) upstream since April 1941. Diversions for irrigation of about 33,000 acres (130 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--29 years, 210 ft³/s (5.947 m³/s), 152,100 acre-ft/yr (188 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,400 ft³/s (181 m³/s) July 27, 1957, gage height, 8.95 ft (2.728 m), from rating curve extended above 5,100 ft³/s (140 m³/s); minimum determined, 5.6 ft³/s (0.16 m³/s) May 1, 3, 1977 (may have been lower during periods of freezeup).

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred Oct. 5, 1911 at this location.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,190 ft³/s (62.0 m³/s) May 29, gage height, 6.50 ft (1.981 m); minimum daily, 48 ft³/s (1.36 m³/s) Dec. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	134	70	63	54	65	68	742	1650	1960	1780	158	316
2	122	70	79	52	64	70	657	1630	1910	1850	161	323
3	127	258	71	49	66	72	643	1540	1840	1850	152	377
4	133	126	57	50	68	68	774	1430	1840	1800	144	370
5	119	89	62	54	60	66	933	1430	1830	1480	133	359
6	119	76	68	56	60	70	1150	1360	1820	1170	138	348
7	122	68	60	62	60	125	1390	1200	1800	990	135	347
8	119	65	54	62	58	140	1460	1160	1810	969	142	352
9	105	62	50	66	56	165	1430	1060	1830	958	148	344
10	86	64	55	70	58	189	1570	997	1820	939	164	347
11	86	133	56	64	56	157	1160	891	1740	932	175	344
12	97	266	58	66	60	177	929	825	1570	926	213	343
13	94	183	60	68	62	292	870	790	1430	913	218	338
14	93	111	57	64	62	453	1020	765	1510	861	283	351
15	98	96	55	64	68	577	1290	837	1520	738	412	375
16	98	84	52	64	70	650	1550	1120	1470	702	545	383
17	104	76	54	62	72	631	1770	1350	1240	580	420	403
18	108	72	56	63	73	581	1740	1330	960	540	385	381
19	109	67	58	64	72	569	1860	1310	942	480	400	371
20	120	64	54	62	76	607	1560	1390	947	450	377	366
21	149	60	51	58	76	678	1500	1670	923	292	360	374
22	199	62	50	64	72	645	1550	1790	1040	274	342	381
23	133	61	50	70	70	699	1670	1830	1390	264	330	368
24	135	63	51	62	70	779	1780	1980	1570	249	339	364
25	173	241	52	68	68	873	1610	1980	1590	214	345	362
26	97	114	48	70	68	982	1540	2010	1590	152	350	367
27	77	87	52	68	72	915	1440	2090	1590	156	346	370
28	77	72	54	68	70	755	1500	2090	1620	166	332	377
29	71	63	56	65	---	1140	1560	2110	1760	186	312	370
30	71	61	55	64	---	888	1530	2090	1780	176	331	370
31	68	---	56	64	---	964	---	2030	---	171	331	---
TOTAL	3443	2984	1754	1937	1852	15045	40178	45735	46642	23208	8621	10841
MEAN	111	99.5	56.6	62.5	66.1	485	1339	1475	1555	749	278	361
MAX	199	266	79	70	76	1140	1860	2110	1960	1850	545	403
MIN	68	60	48	49	56	66	643	765	923	152	133	316
AC-FT	6830	5920	3480	3840	3670	29840	79690	90720	92510	46030	17100	21500

CAL YR 1978 TOTAL 47435 MEAN 130 MAX 840 MIN 26 AC-FT 94090
WTR YR 1979 TOTAL 202240 MEAN 554 MAX 2110 MIN 48 AC-FT 401100

09355000 SPRING CREEK AT LA BOCA, CO

LOCATION.--Lat 37°00'40", long 107°35'47", in SE¼SW¼ sec.15, T.32 N., R.7 W., La Plata County, Hydrologic Unit 14080101, on right bank in an excavated channel, 0.2 mi (0.3 km) upstream from mouth, and 0.2 mi (0.3 km) east of La Boca.

DRAINAGE AREA.--58 mi² (150 km²), approximately.

PERIOD OF RECORD.--October 1950 to current year. Monthly discharge only for some periods, published in WSP 1733.

GAGE.--Water-stage recorder. Altitude of gage is 6,160 ft (1,878 m), from topographic map.

REMARKS.--Records good except those for winter period, which are poor. Part of flow is return waste from irrigation. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--29 years, 29.8 ft³/s (0.844 m³/s), 21,590 acre-ft/yr (26.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,980 ft³/s (56.1 m³/s) Sept. 6, 1970, gage height, 4.62 ft (1.408 m), from rating curve extended above 160 ft³/s (4.53 m³/s) on basis of field estimate of peak flow; maximum gage height, 5.98 ft (1.823 m) Mar. 9, 1960 (backwater from ice); minimum discharge, 0.6 ft³/s (0.017 m³/s) Nov. 27, 1959.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 180 ft³/s (5.1 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Mar. 29	0445	*546	15.5	2.80	0.853

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Aug. 15	2315	215	6.09	1.73	0.527

Minimum daily, 3.0 ft³/s (0.08 m³/s) Dec. 21, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	49	6.6	5.2	3.6	3.3	5.0	50	27	59	70	57	64
2	48	6.7	7.4	3.5	4.6	5.4	30	26	59	73	59	66
3	48	54	10	3.7	3.9	5.4	25	21	61	75	59	76
4	51	14	16	3.6	3.3	5.0	20	17	61	72	57	75
5	48	8.0	9.9	3.8	3.0	4.8	20	21	60	70	59	72
6	41	7.2	6.8	4.4	3.4	5.2	34	49	59	68	60	68
7	38	6.8	4.1	4.2	3.5	7.5	50	30	54	67	60	70
8	39	6.7	4.1	3.8	3.6	10	55	27	55	68	61	71
9	40	6.7	4.2	3.7	3.7	12	57	33	59	70	61	68
10	41	6.6	4.0	3.7	3.7	14	62	38	58	68	62	70
11	38	18	4.0	3.8	3.8	11	40	35	58	68	63	69
12	38	48	3.8	4.2	3.9	50	20	31	58	67	62	67
13	35	22	4.0	4.6	3.9	70	15	32	56	68	63	64
14	35	10	3.8	4.1	4.0	86	23	30	58	67	74	68
15	36	8.9	3.5	3.5	4.8	126	46	25	65	67	112	72
16	29	7.9	3.7	4.0	5.2	163	58	41	62	67	146	76
17	22	7.2	4.0	4.6	5.4	128	66	41	63	67	96	81
18	22	6.7	4.9	5.6	5.4	82	64	41	60	68	95	79
19	22	6.4	4.5	5.7	5.5	92	63	39	60	69	92	77
20	22	5.7	3.2	4.8	5.6	124	45	46	60	67	93	81
21	33	5.0	3.0	4.0	5.6	209	43	52	59	65	92	76
22	30	6.0	3.1	4.1	5.2	149	47	44	59	67	89	75
23	11	5.5	3.1	3.5	5.2	164	51	48	63	66	85	77
24	15	5.7	3.2	4.0	5.0	185	49	49	66	65	70	77
25	32	54	3.2	3.6	5.0	192	40	61	66	63	70	70
26	8.2	10	3.0	4.2	4.9	195	35	71	66	60	72	71
27	6.7	6.6	3.4	4.0	5.4	138	30	73	64	63	70	72
28	6.6	5.4	4.4	3.3	5.2	109	33	59	63	62	66	73
29	6.4	6.3	4.0	3.4	---	263	33	60	64	65	62	72
30	6.7	6.4	4.3	3.6	---	89	29	56	67	63	68	70
31	6.7	---	3.4	3.1	---	82	---	58	---	60	68	---
TOTAL	904.3	375.0	149.2	123.7	125.0	2781.3	1233	1281	1822	2075	2303	2167
MEAN	29.2	12.5	4.81	3.99	4.46	89.7	41.1	41.3	60.7	66.9	74.3	72.2
MAX	51	54	16	5.7	5.6	263	66	73	67	75	146	81
MIN	6.4	5.0	3.0	3.1	3.0	4.8	15	17	54	60	57	64
AC-FT	1790	744	296	245	248	5520	2450	2540	3610	4120	4570	4300

CAL YR 1978 TOTAL 10282.5 MEAN 28.2 MAX 96 MIN 1.8 AC-FT 20400
WTR YR 1979 TOTAL 15339.5 MEAN 42.0 MAX 263 MIN 3.0 AC-FT 30430

09355100 NAVAJO RESERVOIR NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'28", long 107°36'31", in SW¼SE¼ sec.18, T.30 N., R.7 W., San Juan County, Hydrologic Unit 14080101, in gate shaft of outlet works structure near right abutment of Navajo Dam on San Juan River, 5.5 mi (8.8 km) east of Archuleta, 33 mi (53 km) east of Farmington, and at mile 298.6 (480.4 km).

DRAINAGE AREA.--3,230 mi² (8,370 km²), approximately.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929.

PERIOD OF RECORD.--June 1962 to current year. Prior to October 1968 dead storage included.

REMARKS.-- Reservoir is formed by earth-rock-fill dam, completed in June 1963; storage began June 27, 1962. Capacity, 1,708,600 acre-ft (2.11 km³) between elevation 5,720 ft (1,743 m) upstream toe of dam and 6,085 ft (1,855 m) crest of spillway. Usable capacity 1,696,000 acre-ft (2.09 km³) above elevation 5,774.9 ft (1,760.19 m) minimum operating level. Dead storage below elevation 5,774.9 ft (1,760.19 m) is 12,600 acre-ft (15.5 hm³). Figures given herein are usable contents. Reservoir is used for irrigation storage, river regulation, desilting, flood control, and recreation.

COOPERATION.--Records furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily contents, 1,731,000 acre-ft (2.13 km³) July 2-4, 1973, elevation, 6,087.25 ft (1,855.394 m); minimum daily contents after June 1964 (initial filling period), 234,300 acre-ft (289 hm³) Mar. 10, 11, 1965 elevation, 5,906.36 ft (1,800.259 m).

EXTREMES FOR CURRENT YEAR.--Maximum daily contents, 1,559,000 acre-ft (1.92 km³) July 5, elevation, 6,075.86 ft (1,851.922 m); minimum daily contents, 1,160,000 acre-ft (1.43 km³) Apr. 16, elevation, 6,044.61 ft (1,842.397 m).

Capacity table (elevation, in feet and contents, in thousands of acre-feet)

6,015	864.5	6,035	1,056.7	6,055	1,281.3	6,075	1,546.2
6,020	910.1	6,040	1,109.4	6,060	1,343.5	6,080	1,619.5
6,025	957.2	6,045	1,164.3	6,065	1,408.3	6,085	1,696.0
6,030	1,006.0	6,050	1,221.6	6,070	1,475.8	6,090	1,775.7

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
INSTANTANEOUS OBSERVATIONS AT 2400

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1238000	1218000	1210000	1196000	1180000	1166000	1183000	1252000	1407000	1550000	1439000	1385000
2	1237000	1217000	1210000	1195000	1179000	1166000	1178000	1256000	1412000	1553000	1433000	1385000
3	1236000	1218000	1209000	1195000	1178000	1166000	1174000	1261000	1418000	1556000	1428000	1385000
4	1235000	1218000	1209000	1194000	1178000	1165000	1169000	1264000	1423000	1557000	1421000	1385000
5	1234000	1217000	1208000	1194000	1177000	1165000	1164000	1268000	1429000	1559000	1414000	1385000
6	1233000	1217000	1207000	1193000	1176000	1165000	1161000	1271000	1436000	1558000	1411000	1384000
7	1233000	1217000	1207000	1193000	1175000	1165000	1163000	1275000	1445000	1556000	1407000	1383000
8	1232000	1216000	1207000	1192000	1175000	1165000	1164000	1280000	1461000	1555000	1401000	1383000
9	1231000	1216000	1205000	1192000	1174000	1166000	1166000	1282000	1470000	1553000	1398000	1383000
10	1231000	1216000	1204000	1191000	1173000	1167000	1168000	1282000	1474000	1552000	1395000	1382000
11	1230000	1217000	1204000	1190000	1173000	1168000	1169000	1281000	1479000	1549000	1394000	1382000
12	1229000	1217000	1203000	1190000	1172000	1168000	1167000	1278000	1484000	1546000	1390000	1381000
13	1228000	1216000	1203000	1189000	1171000	1170000	1164000	1275000	1489000	1543000	1384000	1380000
14	1227000	1216000	1202000	1189000	1171000	1171000	1163000	1272000	1495000	1540000	1381000	1380000
15	1226000	1216000	1201000	1188000	1170000	1173000	1162000	1270000	1502000	1536000	1379000	1379000
16	1225000	1215000	1201000	1188000	1170000	1176000	1160000	1270000	1510000	1532000	1380000	1379000
17	1224000	1215000	1201000	1188000	1169000	1178000	1166000	1272000	1518000	1528000	1382000	1378000
18	1223000	1214000	1200000	1187000	1169000	1178000	1174000	1275000	1522000	1523000	1383000	1377000
19	1222000	1214000	1201000	1187000	1169000	1179000	1184000	1280000	1524000	1519000	1384000	1377000
20	1222000	1213000	1201000	1187000	1169000	1179000	1192000	1285000	1524000	1513000	1385000	1377000
21	1221000	1213000	1201000	1186000	1169000	1180000	1198000	1291000	1524000	1508000	1384000	1376000
22	1221000	1212000	1201000	1186000	1168000	1183000	1204000	1299000	1524000	1501000	1384000	1375000
23	1221000	1212000	1201000	1185000	1168000	1183000	1208000	1307000	1525000	1495000	1385000	1375000
24	1221000	1212000	1200000	1185000	1168000	1184000	1216000	1317000	1527000	1489000	1385000	1374000
25	1221000	1212000	1200000	1184000	1168000	1185000	1224000	1326000	1530000	1482000	1385000	1373000
26	1221000	1212000	1199000	1183000	1167000	1187000	1229000	1336000	1533000	1476000	1385000	1371000
27	1221000	1212000	1199000	1183000	1166000	1189000	1234000	1350000	1536000	1470000	1385000	1369000
28	1220000	1212000	1198000	1182000	1166000	1188000	1238000	1364000	1539000	1462000	1385000	1367000
29	1220000	1211000	1197000	1181000	---	1188000	1244000	1377000	1543000	1455000	1385000	1366000
30	1219000	1211000	1197000	1181000	---	1187000	1248000	1389000	1546000	1451000	1385000	1364000
31	1219000	---	1196000	1181000	---	1185000	---	1399000	---	1446000	1386000	---
MAX	1238000	1218000	1210000	1196000	1180000	1189000	1248000	1399000	1546000	1559000	1439000	1385000
MIN	1219000	1211000	1196000	1181000	1166000	1165000	1160000	1252000	1407000	1446000	1379000	1364000
(†)	6049.70	6049.02	6047.77	6046.42	6045.14	6046.80	6052.19	6064.29	6074.98	6067.77	6063.24	6061.58
(‡)	-19.0	-8.0	-15.0	-15.0	-15.0	+19.0	+63.0	+151.0	+147.0	-100.0	-60.0	-22.0

CAL YR 1978 MAX 1295000 MIN 935100
WTR YR 1979 MAX 1559000 MIN 1160000

† Elevation, in feet, at end of month.
‡ Change in contents, in thousands of acre-feet.

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM

LOCATION.--Lat 36°48'05", long 107°41'51", in N½ sec.20, T.30 N., R.8 W., San Juan County, Hydrologic Unit 14080101, on left bank 0.5 mi (0.8 km) upstream from Gobernador Canyon, 0.8 mi (1.3 km) northeast of Archuleta, 7.2 mi (11.6 km) downstream from Navajo Dam, and at mile 291.4 (468.9 km).

DRAINAGE AREA.--3,260 mi² (8,440 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--December 1954 to current year.

REVISED RECORDS.--The annual runoff for the 1958 water year as published in table 2, WSP 1733, is 455,000 acre-ft (561 hm³). The correct value is 1,455,000 acre-ft (1,790 hm³).

GAGE.--Water-stage recorder. Altitude of gage is 5,653 ft (1,723 m), from river-profile survey. Prior to Dec. 29, 1959, at site 5.0 mi (8.0 km) upstream at altitude 55 ft (17 m) higher. Dec. 29, 1959 to Nov. 15, 1964, at site 0.4 mi (0.6 km) upstream at altitude 5 ft (1.5 m) higher. Prior to Nov. 28, 1966, at altitude 2.0 ft (0.610 m) higher.

AVERAGE DISCHARGE.--7 years (water years 1956-62), 1,304 ft³/s (36.93 m³/s), 944,700 acre-ft/yr (1,160 hm³/yr) prior to closure of Navajo Dam.
17 years (water years 1963-79), 1,083 ft³/s (30.67 m³/s), 784,600 acre-ft/yr (967 hm³/yr) since closure of Navajo Dam.

REMARKS.--Water-discharge records good. Flow completely regulated by Navajo Reservoir (station 09355100) 7 mi (11 km) upstream except for minor inflow from 30 mi² (80 km²) intervening drainage area. Highwater diversions through Azotea tunnel (station 08284160) into Rio Grande Basin began in March 1971. Diversions for irrigation of about 47,000 acres (190 km²) above station. Releases from Navajo Reservoir, beginning in January 1976, for use on Navajo Indian Irrigation Project bypass gage in tunnel on left bank. See tabulation below for monthly and annual releases as furnished by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,900 ft³/s (535 m³/s) July 27, 1957, gage height, 11.00 ft (3.353 m), site and datum then in use; minimum determined, 8 ft³/s (0.23 m³/s) Feb. 28, 1963. Maximum discharge since construction of Navajo Dam in 1962, 6,500 ft³/s (184 m³/s) June 20, 1965, gage height, 4.57 ft (1.393 m).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,780 ft³/s (164 m³/s) May 23, gage height, 6.67 ft (2.033 m); minimum daily, 457 ft³/s (12.9 m³/s) Jan. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	593	467	509	491	558	636	4160	4400	5250	5280	4160	631
2	593	466	521	470	558	636	4200	4570	5270	5250	4040	640
3	587	502	519	469	558	636	4200	4670	5290	5250	3780	646
4	504	509	516	485	558	636	4160	4560	5280	5230	3620	654
5	473	506	515	487	546	642	4200	4530	5300	5240	3640	662
6	497	503	521	488	552	642	4240	4530	5340	5250	3360	669
7	497	503	516	486	558	648	4350	4510	3410	5280	3000	639
8	495	503	516	483	558	654	4320	4860	3450	5250	2720	605
9	491	503	516	475	558	654	4400	5060	5250	5280	2480	609
10	486	503	516	479	558	748	4480	5010	5280	5280	2280	619
11	487	509	516	473	564	900	4550	5010	5320	5280	2180	621
12	491	517	507	476	564	970	4590	4980	5320	5280	2180	630
13	491	509	509	457	564	962	4910	4960	5280	5280	2120	634
14	485	509	503	473	576	970	5030	4960	5330	5300	1920	637
15	484	509	503	473	588	1020	5010	4930	5310	5310	1700	638
16	482	509	503	467	588	1380	5070	4930	5350	5330	1500	643
17	479	509	511	472	588	1750	5150	4960	5330	5370	1350	651
18	473	509	519	479	582	1730	5200	4960	5330	5340	1300	659
19	473	509	514	479	582	1750	5230	4990	5330	5350	1300	662
20	473	503	509	474	594	1780	5230	5020	5300	5350	1230	662
21	477	503	509	467	600	1790	5210	5080	5300	5340	1080	666
22	480	508	497	469	600	1790	5230	5330	5280	5330	926	669
23	475	509	497	545	600	1800	5230	5480	5280	5200	765	674
24	478	515	497	591	606	1800	5230	5110	5260	5060	653	716
25	471	523	497	557	606	1850	5240	5140	5280	4920	659	1110
26	467	516	491	560	606	2270	5250	5160	5280	4750	659	1210
27	467	516	491	523	624	2980	5130	5150	5250	4610	587	1220
28	467	516	491	545	624	3540	4620	5210	5260	4510	553	1220
29	461	516	495	560	---	3920	4620	5230	5280	4530	602	1230
30	463	516	491	558	---	4120	4600	5230	5280	4490	623	1240
31	467	---	493	564	---	4140	---	5250	---	4400	630	---
TOTAL	15207	15195	15708	15475	16218	49744	143040	153770	155070	158920	57597	22766
MEAN	491	507	507	499	579	1605	4768	4960	5169	5126	1858	759
MAX	593	523	521	591	624	4140	5250	5480	5350	5370	4160	1240
MIN	461	466	491	457	546	636	4160	4400	3410	4400	553	605
AC-FT	30160	30140	31160	30690	32170	98670	283700	305000	307600	315200	114200	45160
(†)	4200	0	0	0	0	0	4630	9400	9920	12020	14040	16310

CAL YR 1978 TOTAL 189442 MEAN 519 MAX 660 MIN 444 AC-FT 375800
WTR YR 1979 TOTAL 818710 MEAN 2243 MAX 5480 MIN 457 AC-FT 1624000

† Discharge in acre-feet, through Navajo Project tunnel.

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1955 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
DEC 19...	1215	516	335	8.1	6.0	6.5	4.6	12.6	10	120	35	36
MAR 13...	1300	970	343	8.5	14.0	6.0	7.4	13.5	12	120	37	36
MAY 25...	0840	5150	310	8.1	15.5	6.5	7.6	11.8	9	110	28	32
SEP 28...	0800	1220	215	7.9	13.0	10.0	17	9.0	23	69	12	21

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
DEC 19...	6.9	23	.9	2.3	83	79	4.7	.2	11	229	214	.10
MAR 13...	6.6	20	.8	2.2	80	65	3.6	.2	11	194	193	.01
MAY 25...	6.8	17	.7	3.3	80	55	3.0	.2	9.0	189	175	.08
SEP 28...	4.1	8.3	.4	1.4	57	35	1.3	.2	11	114	117	.11

DATE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
DEC 19...	.14	.00	--	.23	.33	.030	.02	40	10	20	2.7	.5
MAR 13...	.04	.01	--	.13	.15	.010	.03	50	10	20	4.3	--
MAY 25...	.11	.04	--	.48	.60	.010	.20	170	20	0	3.4	.4
SEP 28...	.10	.00	.00	.53	.64	.040	.01	30	<10	2	5.1	.4

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
DEC 19...	1215	1	1	100	80	40	5	2	0	0
MAR 13...	1300	1	1	100	0	50	0	0	0	0
MAY 25...	0840	1	1	100	100	170	0	0	10	0
SEP 28...	0800	1	1	100	50	30	0	<1	20	10

09355500 SAN JUAN RIVER NEAR ARCHULETA, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
DEC									
19...	1	<3	500	2	170	10	--	--	40
MAR									
13...	0	0	8	0	160	10	8	0	20
MAY									
25...	0	0	7	0	370	20	9	0	10
SEP									
28...	0	<3	2	1	470	<10	2	0	20

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
DEC									
19...	20	.0	.0	2	4	8	0	10	<3
MAR									
13...	20	.1	.0	1	1	0	0	20	10
MAY									
25...	0	.0	.0	1	1	0	0	20	10
SEP									
28...	2	.4	.0	1	1	0	0	0	<3

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
DEC									
19...	1215	3.5	<.4	3.7	.6	3.4	.6	.08	.80
MAR									
13...	1300	<2.0	.4	2.5	.6	2.3	.6	.22	.80

09356565 CAÑON LARGO WASH NEAR BLANCO, NM

LOCATION.--Lat 36°41'24", long 107°45'21", in NW¼NW¼ sec.35, T.29 N., R.9 W., San Juan County, Hydrologic Unit 14080103, on left bank, at upstream side of country highway bridge, 1.2 mi (1.9 km) upstream from Medina Canyon, 4.0 mi (6.4 km) upstream from mouth, and 5.0 mi (8.0 km) southeast of Blanco.

DRAINAGE AREA.--1,700 mi² (4,400 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,644 ft (1,720 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,970 ft³/s (141 m³/s) Mar. 8, 1979, gage height, 3.70 ft (1.128 m), from rating curve extended above 620 ft³/s (17.6 m³/s); maximum gage height, 3.87 ft (1.180 m) May 9, 1978; no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 3	0545	4,320	122	3.67	1.119
Mar. 8	0730	*4,970	141	3.70	1.128
Aug. 16	0930	1,040	29.5	3.21	0.978

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.04	.00	80	.10	13	13	.01	.00	.00	.00	.00
2	.00	.04	.00	15	.16	23	4.2	.01	.00	.00	.00	.00
3	.00	703	.00	1.0	.12	8.8	.88	.00	.26	.00	.00	.00
4	.00	3.1	.00	.25	.12	2.6	.58	.01	.00	.00	.00	.00
5	.00	.00	.00	.00	.15	2.0	.58	.00	.01	.00	.00	.00
6	.00	.00	.00	.00	.18	1.1	.47	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.18	91	.45	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.20	1140	.44	.01	.00	.00	.00	.00
9	.00	.00	.00	.00	.25	1270	.65	.01	.00	.00	.00	.00
10	.00	.00	.00	.00	.25	178	.92	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.25	85	.52	.00	.00	.00	.00	.00
12	.00	1.5	.00	.00	130	185	.42	.00	.00	.00	.00	.00
13	.00	30	.00	.00	140	403	.37	.00	.00	.00	.00	.00
14	.00	58	.00	.00	390	289	.32	.00	.00	.00	28	.00
15	.00	79	.00	.00	1340	234	.32	.00	.00	.00	105	.00
16	.00	23	.00	50	1290	183	.27	.00	.00	.00	160	.00
17	.00	1.5	.00	410	1380	248	.22	.00	.00	62	8.5	.00
18	.00	.00	280	510	930	84	.22	.01	.00	396	9.8	.00
19	.00	.00	140	1040	420	75	.16	.01	.00	210	.01	.00
20	.00	.00	200	180	470	51	.13	.00	.00	3.7	.00	.00
21	.19	.00	25	20	270	98	.12	.00	.00	.00	.00	.00
22	4.8	.00	.00	1.0	86	50	.12	.00	.00	.00	.00	.00
23	8.3	.00	.00	.50	72	26	.10	.00	.00	.00	.00	.00
24	4.6	6.0	.00	.20	55	20	.08	.01	.35	.00	.00	.00
25	20	76	.00	.20	28	62	.07	.00	.00	.00	.00	.00
26	3.4	42	.00	.25	32	92	.04	.00	.00	.00	.00	.00
27	.22	8.8	.00	.15	62	257	.04	.00	.00	.00	.00	.00
28	.22	1.6	.00	.12	6.0	110	.02	18	.00	.00	.00	.00
29	.19	.00	80	.14	---	89	.01	.00	.00	.00	.00	.00
30	.14	.00	130	.08	---	41	.01	.00	.00	.00	.00	.00
31	.10	---	100	.08	---	47	---	.00	---	.00	.00	---
TOTAL	42.16	1033.58	955.00	2308.97	7102.96	5458.5	25.73	18.08	.62	671.70	311.31	.00
MEAN	1.36	34.5	30.8	74.5	254	176	.86	.58	.021	21.7	10.0	.000
MAX	20	703	280	1040	1380	1270	13	18	.35	396	160	.00
MIN	.00	.00	.00	.00	.10	1.1	.01	.00	.00	.00	.00	.00
AC-FT	84	2050	1890	4580	14090	10830	51	36	1.2	1330	617	.00

CAL YR 1978 TOTAL 3711.54 MEAN 10.2 MAX 703 MIN .00 AC-FT 7360
WTR YR 1979 TOTAL 17928.61 MEAN 49.1 MAX 1380 MIN .00 AC-FT 35560

Note: No gage-height record December 8 to February 20.

09356565 CAÑON LARGO WASH NEAR BLANCO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 40 indicates single-stage sampler.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT												
25...	1100	24	1500	8.3	12.0	11.0	8.9	160	0	57	4.9	250
DEC												
18...	0315	E224	1200	7.8	--	--	--	--	--	--	--	--
18...	0320	E860	893	8.3	--	--	--	--	--	--	--	--
18...	0325	E1670	905	8.0	--	--	--	--	--	--	--	--
18...	0330	E3430	770	7.7	--	--	--	--	--	--	--	--
19...	1045	71	1010	8.3	4.0	1.0	10.9	110	0	40	3.1	180
FEB												
06...	1330	.18	3500	8.0	-3.5	.0	11.0	970	750	330	36	460
14...	0940	E224	1460	7.8	--	--	--	--	--	--	--	--
14...	0950	E860	1305	7.8	--	--	--	--	--	--	--	--
14...	0955	E1280	1280	7.7	--	--	--	--	--	--	--	--
14...	1000	E3430	895	7.9	--	--	--	--	--	--	--	--
MAR												
06...	1600	1.1	3150	8.5	12.0	16.0	7.9	610	410	200	28	480
08...	0330	E860	1310	7.7	--	--	--	--	--	--	--	--
APR												
03...	1330	.88	2800	8.5	8.0	12.0	8.2	610	400	200	27	450
JUL												
19...	1200	83	1955	7.6	25.5	24.0	6.4	270	0	89	12	340
AUG												
15...	1015	60	1510	8.0	21.5	17.0	7.1	200	34	68	6.7	270
16...	0730	E292	E3170	7.3	--	--	--	--	--	--	--	--
16...	1000	E900	E2545	7.4	--	--	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT												
25...	8.5	3.8	790*	0	648*	540	9.7	.8	8.8	969	1260	2.2
DEC												
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--	--
19...	7.4	3.1	160	0	131	310	5.0	.6	6.6	652	627	1.3
FEB												
06...	6.4	1.3	270	0	221	1500	19	.4	9.7	2780	2490	.36
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
06...	8.4	6.2	240	4	204	1200	21	.7	7.9	2450	2070	.33
08...	--	--	--	--	--	--	--	--	--	--	--	--
APR												
03...	7.9	4.6	220	16	207	1300	15	.7	5.9	2130	2130	.35
JUL												
19...	9.0	5.6	434	0	356	810	21	.9	11	1430	1500	1.0
AUG												
15...	8.4	4.8	200	0	164	630	16	.8	10	1130	1110	.46
16...	--	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--	--	--

* Determined on well mixed water-suspended sediment sample.

09356565 CANON LARGO WASH NEAR BLANCO, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
OCT											
25...	.08	37	39	2.90	110	30	--	--	6.8	.20	--
DEC											
18...	--	--	--	--	--	--	--	83	--	--	40
18...	--	--	--	--	--	--	--	120	--	--	40
18...	--	--	--	--	--	--	--	95	--	--	40
18...	--	--	--	--	--	--	--	110	--	--	40
19...	.03	18	19	2.60	70	80	--	--	4.2	--	--
FEB											
06...	.15	.42	.93	.050	130	20	--	--	6.2	1.0	--
14...	--	--	--	--	--	--	--	19	--	--	40
14...	--	--	--	--	--	--	--	37	--	--	40
14...	--	--	--	--	--	--	--	38	--	--	40
14...	--	--	--	--	--	--	--	200	--	--	40
MAR											
06...	.07	.59	.99	.050	150	10	--	--	12	2.2	--
08...	--	--	--	--	--	--	--	330	--	--	40
APR											
03...	.07	4.5	5.0	.340	90	20	--	--	7.2	--	--
JUL											
19...	.07	12	13	1.00	130	0	10	--	13	--	--
AUG											
15...	2.6	9.4	12	9.50	130	10	0	--	14	--	--
16...	--	--	--	--	--	--	--	500	--	--	40
16...	--	--	--	--	--	--	--	460	--	--	40

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)
DEC												
18...	0320	--	27	--	--	--	--	--	--	--	--	--
18...	0325	--	17	--	--	--	--	--	--	--	--	--
18...	0330	--	18	--	--	--	--	--	--	--	--	--
FEB												
14...	0940	--	9	--	--	--	--	--	--	--	--	--
14...	0950	--	15	--	--	--	--	--	--	--	--	--
14...	0955	--	14	--	--	--	--	--	--	--	--	--
14...	1000	--	50	--	--	--	--	--	--	--	--	--
MAR												
08...	0330	--	56	--	--	--	--	--	--	--	--	--
JUL												
19...	1200	0	--	2	100	0	130	1	0	1	6	0
AUG												
15...	1015	30	--	2	200	0	130	0	10	0	11	10
16...	0730	--	480	--	--	--	--	--	--	--	--	--
16...	1000	--	340	--	--	--	--	--	--	--	--	--

DATE	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
DEC												
18...	--	--	--	--	--	--	--	--	--	--	--	40
18...	--	--	--	.6	--	--	--	5	--	--	--	40
18...	--	--	--	.8	--	--	--	2	--	--	--	40
FEB												
14...	--	--	--	.1	--	--	--	1	--	--	--	40
14...	--	--	--	.3	--	--	--	2	--	--	--	40
14...	--	--	--	.4	--	--	--	5	--	--	--	40
14...	--	--	--	1.5	--	--	--	12	--	--	--	40
MAR												
08...	--	--	--	2.2	--	--	--	10	--	--	--	40
JUL												
19...	1	20	10	--	.1	10	1	--	3	<1.0	50	--
AUG												
15...	3	30	0	--	.1	8	3	--	5	1.0	20	--
16...	--	--	--	2.2	--	--	--	24	--	--	--	40
16...	--	--	--	2.5	--	--	--	22	--	--	--	40

09356565 CANON LARGO WASH NEAR BLANCO, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
25...	1100	4400	14000
FEB			
06...	1330	K0	40
MAR			
06...	1600	K0	1000
APR			
03...	1330	K0	K290
JUL			
19...	1200	K23	27000
AUG			
15...	1015	--	44000

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)
OCT									
25...	1100	24	11.0	78400	--	--	--	--	--
DEC									
18...	0315	E224	--	86500	--	--	--	--	--
18...	0320	E860	--	58500	--	--	--	--	--
18...	0325	E1670	--	36000	--	--	--	--	--
18...	0330	E3430	--	37400	--	--	--	--	--
19...	1045	71	1.0	48000	--	--	--	--	--
FEB									
06...	1330	.18	.0	366	--	--	--	--	--
14...	0940	E224	--	5920	--	--	--	--	--
14...	0950	E860	--	24100	--	--	--	--	--
14...	0955	E1280	--	19900	--	--	--	--	--
14...	1000	E3430	--	91200	--	--	--	--	--
MAR									
06...	1600	1.1	16.0	2050	--	--	--	--	--
08...	0330	E860	--	141000	--	--	--	--	--
09...	1745	377	5.5	97100	--	--	--	--	--
APR									
03...	1330	.88	12.0	6370	--	--	--	--	--
JUL									
19...	1200	83	24.0	382000	40	50	65	84	95
AUG									
15...	1015	60	17.0	150000	49	54	69	81	89
16...	0730	E292	--	231000	--	--	--	--	--
16...	1000	E900	--	255000	--	--	--	--	--

09356565 CANON LARGO WASH NEAR BLANCO, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)	SAMPLE SOURCE (72005)
OCT									
25...	--	--	--	--	--	--	--	--	--
DEC									
18...	--	--	--	--	--	--	--	--	40
18...	--	--	--	--	--	--	--	--	40
18...	--	--	--	--	--	--	--	--	40
18...	--	--	--	--	--	--	--	--	40
19...	--	--	--	--	--	--	--	--	--
FEB									
06...	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	--	--	40
MAR									
06...	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	40
09...	--	--	--	--	--	--	--	--	--
APR									
03...	--	--	--	--	--	--	--	--	--
JUL									
19...	99	100	16	21	59	90	98	100	--
AUG									
15...	97	100	5	13	51	89	100	--	--
16...	--	--	--	--	--	--	--	--	40
16...	--	--	--	--	--	--	--	--	40

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE, NEAR BLOOMFIELD, NM

LOCATION (REVISED).--Lat 36°41'22", long 108°05'42", in NE¼NE¼ sec.33, T.29 N., R.12 W., San Juan County, Hydrologic Unit 14080101, on downstream end of center pier of Hammond Bridge, 0.9 mi (1.4 km) south of State Highway 17, 1.2 mi (1.9 km) upstream from Gallegos Canyon, 4.1 mi (6.6 km) downstream from Kutz Canyon, 5.0 mi (8.0 km) southwest of Bloomfied, and at mile 261 (420 km).

DRAINAGE AREA.--5,540 mi² (14,350 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1910 to September 1911, August 1927 to December 1931, November 1955 to January 1964 (published as "at Bloomfield"), October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,330 ft (1,624 m), from topographic map. See WSP 1925 for history of changes prior to Oct. 1, 1977. Oct. 1, 1977 to May 3, 1978, at site 6.5 mi (10.4 km) upstream at different datum.

REMARKS.--Water-discharge records poor. Since June 1962 flow can be substantially controlled by operation of Navajo Reservoir (station 09355100) 41 mi (66 km) upstream. Diversions above station for irrigation about 80 mi² (207 km²). Hammond Main Canal bypasses gage on left bank. The bypass flow is not included in the record.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge determined, 20,500 ft³/s (580 m³/s) July 27, 1957; maximum gage height, 11.50 ft (3.505 m) Aug. 11, 1929, site and datum then in use (discharge not determined); minimum daily, 50 ft³/s (1.42 m³/s) Sept. 15, 1956.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in October 1911 at this station.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,770 ft³/s (163 m³/s) May 8, gage height, 6.07 ft (1.850 m); minimum daily, 380 ft³/s (10.8 m³/s) Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	622	708	625	699	868	760	3990	4710	4930	5030	4030	475
2	622	770	682	625	794	770	3870	4490	4910	5030	3850	492
3	622	1400	658	610	794	725	3820	4790	4950	5030	3560	498
4	530	611	622	610	794	750	3980	4570	4910	5030	3380	504
5	473	600	628	570	794	745	3790	4470	4910	5030	3370	510
6	500	644	652	610	806	750	3680	4490	4930	5050	3260	504
7	540	655	611	670	782	820	3860	4510	3910	5030	2830	504
8	510	666	698	645	843	1200	3900	4650	1890	5010	2590	460
9	500	644	655	625	856	1620	3990	5330	4870	5010	2320	465
10	520	666	640	600	882	1020	4190	5210	4930	5010	2150	465
11	510	688	650	580	869	1060	4170	5170	4950	5010	1980	460
12	491	710	665	600	988	1200	4110	5130	4990	5010	1990	470
13	491	666	699	600	990	1270	4350	5070	4950	4990	1960	475
14	510	655	569	570	1230	1270	4670	5050	4970	4990	1800	486
15	510	688	558	590	2170	1290	4710	5010	4970	5010	1690	510
16	520	611	555	640	2110	1400	4750	4970	4970	5010	1690	510
17	540	590	594	1000	2190	1800	4970	4970	4970	5110	1250	516
18	530	580	854	1100	1730	2040	4990	4910	4950	5170	1200	516
19	560	570	682	1630	1210	1980	5030	4890	4990	5150	1180	516
20	550	600	737	770	1260	2010	5010	4870	4970	5090	1090	522
21	437	600	539	610	1050	2110	5010	4850	4970	5110	960	528
22	560	611	499	590	840	2050	5030	4970	4970	5110	810	528
23	622	600	512	570	770	2000	4990	5390	4970	5030	681	534
24	540	655	520	817	750	2020	5010	4830	4970	4850	534	552
25	633	818	545	794	740	2100	5110	4850	5010	4730	510	840
26	677	634	509	791	730	2200	5230	4930	4990	4560	510	976
27	644	585	540	735	760	2600	5250	4930	4990	4390	510	984
28	666	560	585	756	750	3000	4710	5050	4990	4290	380	1000
29	688	574	688	814	---	3100	4670	4970	5010	4300	435	1010
30	734	608	716	740	---	3700	4710	4890	5030	4270	455	1020
31	699	---	699	746	---	4050	---	4890	---	4120	460	---
TOTAL	17551	19967	19386	22310	29350	53410	135550	151810	144720	151560	53415	17030
MEAN	566	666	625	720	1048	1723	4518	4897	4824	4889	1723	594
MAX	734	1400	854	1630	2190	4050	5250	5390	5030	5170	4030	1020
MIN	437	560	499	570	730	725	3680	4470	1890	4120	380	460
AC-FT	34810	39600	38450	44250	58220	105900	268900	301100	287100	300600	105900	35370

CAL YR 1978 TOTAL 198114 MEAN 543 MAX 1400 MIN 330 AC-FT 393000
WTR YR 1979 TOTAL 816859 MEAN 2238 MAX 5390 MIN 380 AC-FT 1620000

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Samples collected at 09357000 San Juan River at Bloomfield until May 1978.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 18...	1115	524	600	8.2	16.0	12.5	9.4	180	73	57	9.1
NOV 28...	1330	560	530	8.4	4.0	4.5	10.7	170	62	53	8.5
DEC 18...	1230	701	530	8.1	6.5	4.0	11.0	160	55	51	9.0
JAN 23...	1600	627	530	8.1	-3.5	1.0	11.5	180	78	60	8.4
FEB 21...	1430	934	580	8.2	7.0	4.0	10.5	140	0	45	6.4
MAR 26...	1330	2520	520	8.2	17.0	7.5	9.9	140	0	45	6.1
APR 24...	1530	5030	300	8.2	21.0	8.0	9.8	100	10	31	6.4
MAY 23...	1330	5530	325	8.4	30.0	9.0	9.9	110	21	34	6.9
JUN 18...	1230	4990	295	8.3	26.5	11.0	9.6	110	29	33	7.0
JUL 24...	1500	4850	260	7.9	32.0	13.5	9.2	99	12	30	5.9
AUG 22...	1615	793	342	8.1	31.0	19.0	8.0	110	30	35	5.9
SEP 17...	1115	510	418	8.6	23.0	16.0	10.2	140	63	43	6.8

DATE	SODIUM. DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT 18...	49	1.6	2.6	130	0	107	170	5.2	.2	10	377
NOV 28...	48	1.6	2.8	128	2	108	170	5.0	.2	11	356
DEC 18...	48	1.6	2.7	128	0	105	140	5.4	.2	11	369
JAN 23...	46	1.5	2.4	92	0	75	150	4.8	.2	—	347
FEB 21...	73	2.7	2.9	174	0	143	170	4.7	.3	8.9	375
MAR 26...	54	2.0	2.7	240	0	197	130	4.4	.3	9.0	325
APR 24...	22	.9	2.2	110	0	90	62	3.4	.2	11	195
MAY 23...	20	.8	2.4	100	4	89	64	3.2	.2	8.8	205
JUN 18...	18	.7	2.2	100	0	82	61	2.8	.2	7.9	196
JUL 24...	14	.6	2.2	106	0	87	50	2.2	.2	11	171
AUG 22...	26	1.1	1.9	98	0	80	94	2.5	.2	26	226
SEP 17...	35	1.3	1.9	90	2	77	130	2.5	.2	11	274

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT 18...	367	.15	.01	.37	.53	.020	50	<10	5	5.8	--
NOV 28...	364	.14	.02	.56	.72	.070	60	0	--	3.8	--
DEC 18...	330	.20	.01	.31	.52	.060	60	10	--	3.8	.9
JAN 23...	317	.18	.03	.20	.41	.160	40	20	--	5.6	1.2
FEB 21...	397	.25	.04	4.2	4.5	.070	60	150	--	6.4	--
MAR 26...	370	.23	.04	9.2	9.4	1.60	50	40	--	3.3	--
APR 24...	193	.08	.01	.33	.42	.050	30	20	10	3.6	1.0
MAY 23...	193	.06	.05	.46	.57	.010	40	30	--	4.9	--
JUN 18...	182	.06	.03	.10	.19	.020	120	20	--	8.4	.9
JUL 24...	168	.15	.02	.41	.58	.040	3	20	9	19	1.0
AUG 22...	240	.08	.27	.93	1.3	.040	30	20	30	5.8	.4
SEP 17...	277	.06	.01	.39	.46	.060	30	30	--	7.2	.6

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) (01012)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
OCT 18...	1115	0	1	1	70	70	<1	<1	50	<1	<1	0
APR 24...	1530	20	1	1	400	70	0	<1	30	1	<1	10
JUL 24...	1500	0	1	1	200	60	0	<1	3	1	1	0
AUG 22...	1615	20	--	1	--	60	--	<1	30	--	<1	--

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT 18...	0	<1	<1	7	4	<10	2	0	30	20	60	5
APR 24...	0	5	<3	13	3	20	38	0	20	20	300	10
JUL 24...	0	0	<3	21	4	20	8	2	9	10	80	9
AUG 22...	0	--	<3	--	1	20	--	0	--	20	--	30

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT 18...	.2	.2	<1	1	5	1	1	0	.0	20	20
APR 24...	1.1	.1	0	<10	16	0	1	1	.6	80	10
JUL 24...	.1	.0	0	<10	3	0	1	0	1.0	30	10
AUG 22...	--	.0	--	<10	--	1	--	1	1.0	--	440

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	BARIUM, RECOV. FM BOTTOM MATERIAL (UG/G AS BA) (01008)	BERYLLIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01013)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)
OCT 18...	1115	3	230	0	0	4	5	5
APR 24...	1530	2	130	0	0	1	0	0

DATE	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01063)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI) (01068)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
OCT 18...	8	120	.00	4	5	0	13
APR 24...	0	100	.01	0	0	0	4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)
OCT 18...	1115	<5.3	2.8	2.7	2.1	2.5	2.0
APR 24...	1530	<2.7	4.5	2.5	3.4	2.3	3.3

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 18...	1115	360	200
NOV 28...	1330	K30	100
JAN 23...	1600	K5	94
FEB 21...	1430	K110	6200
MAR 26...	1330	K200	750
APR 24...	1530	K7	K16
MAY 23...	1330	K35	300
JUN 18...	1230	K10	60
JUL 24...	1500	K15	39
AUG 22...	1615	75	220

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 18,78		NOV 28,78		DEC 18,78		JAN 23,79		FEB 21,79		MAR 26,79	
TIME	1115		1330		1230		1600		1430		1330	
TOTAL CELLS/ML	460		180		430		540		0		0	
DIVERSITY: DIVISION	1.0		0.0		1.6		1.2		0.0		0.0	
.CLASS	1.0		0.0		1.6		1.2		0.0		0.0	
..ORDER	1.2		0.0		2.0		1.6		0.0		0.0	
...FAMILY	2.7		2.0		3.1		2.4		0.0		0.0	
....GENUS	2.9		2.0		3.5		2.4		0.0		0.0	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...MICRACTINIACEAE												
....MICRACTINIUM	--	-	--	-	22	5	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	27	6	--	-	19	4	--	-	--	-	--	-
....DICTYOSPHAERIUM	110#	23	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	--	-	75#	17	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	22	5	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	5	1	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	11	2	--	-	24	6	76	14	--	-	--	-
....MELOSIRA	5	1	--	-	19	4	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-	--	-
....COCCONEIS	110#	23	44#	25	3	1	20	4	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	11	2	--	-	--	-	--	-
...DIATOMACEAE												
....DIATOMA	96#	21	44#	25	38	9	65	12	--	-	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	--	-	11	2	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	19	4	55	10	--	-	--	-
....SYNEDRA	27	6	--	-	3	1	--	-	--	-	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	21	5	44#	25	5	1	--	-	--	-	--	-
...NAVICULACEAE												
....MASTOGLOIA	--	-	44#	25	--	-	--	-	--	-	--	-
....NAVICULA	37	8	--	-	11	2	30	6	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	16	3	--	-	40	9	20	4	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	3	1	20	4	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	110#	25	250#	47	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....LEPOCINCLIS	--	-	--	-	--	-	--	-	--	-	--	-
....PHACUS	--	-	--	-	3	1	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	5	1	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	APR 24,79		MAY 23,79		JUN 18,79		JUL 24,79		AUG 22,79		SEP 17,79	
TIME	1530		1330		1230		1500		1615		1115	
TOTAL CELLS/ML	220		500		940		77		51		290	
DIVERSITY: DIVISION	0.9		0.0		0.0		0.7		0.0		1.2	
.CLASS	0.9		0.0		0.0		0.7		0.0		1.2	
..ORDER	0.9		0.0		0.0		0.7		0.0		1.2	
...FAMILY	0.9		1.3		1.1		0.7		0.0		1.7	
....GENUS	0.9		1.3		1.1		0.7		0.0		1.9	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...MICRACTINIACEAE												
....MICRACTINIUM	--	-	--	-	--	-	--	-	--	-	--	-
...OOCYSTACEAE												
....ANKISTRODESMUS	--	-	--	-	--	-	--	-	51#	100	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....ACTINASTRUM	--	-	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	--	-	--	-	--	-	64#	83	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	--	-	--	-	--	-	--	-	--	-	--	-
....MELOSIRA	--	-	--	-	--	-	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-	14	5
....COCCONEIS	--	-	--	-	--	-	--	-	--	-	57#	20
....RHOICOSPHENIA	--	-	--	-	13	1	--	-	--	-	--	-
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	26	3	13#	17	--	-	--	-
...DIATOMACEAE												
....DIATOMA	--	-	300#	59	770#	82	--	-	--	-	--	-
...FRAGILARIACEAE												
....ASTERIONELLA	--	-	--	-	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	180#	36	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	13	1	--	-	--	-	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	--	-	39	4	--	-	--	-	--	-
...NAVICULACEAE												
....MASTOGLOIA	--	-	--	-	--	-	--	-	--	-	--	-
....NAVICULA	--	-	13	3	52	5	--	-	--	-	--	-
...NITZSCHIACEAE												
....NITZSCHIA	72#	33	13	3	26	3	--	-	--	-	57#	20
CRYPTOPHYTA (CRYPTOMONADS)												
.CRYPTOPHYCEAE												
..CRYPTOMONADALES												
...CRYPTOMONADACEAE												
....CRYPTOMONAS	--	-	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	140#	67	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-	140#	50
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....LEPOCINCLIS	--	-	--	-	--	-	--	-	--	-	14	5
....PHACUS	--	-	--	-	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
PERIPHYTON

DATE	TIME	LENGTH OF EXPOSURE (DAYS) (00022)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLOROPHYLL RATIO PERIPHYTON (UNITS) (70950)	SAMPLING METHOD
NOV								
28...	1330	40	4.41	4.09	.080	.000	--	Polyethylene strip
MAY								
23...	1330	30	.080	.000	.000	.000	--	"
SEP								
17...	1115	27	.710	.630	1.47	.790	54.4	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)
OCT										
04...	1000	499	9.0	402	--	--	--	--	--	--
18...	1115	524	12.5	130	22	25	--	39	--	--
NOV										
28...	1330	560	4.5	864	--	--	--	--	--	--
DEC										
18...	1230	701	4.0	1210	--	--	--	--	--	--
JAN										
23...	1600	627	1.0	1370	--	--	--	--	--	--
FEB										
21...	1430	934	4.0	16200	--	--	--	--	--	--
MAR										
26...	1330	2520	7.5	23500	--	--	--	--	--	--
APR										
10...	1715	4190	6.0	2710	--	--	--	--	--	--
24...	1530	5030	8.0	1360	--	--	--	--	--	--
MAY										
07...	1315	4510	7.5	765	--	--	--	--	--	--
23...	1330	5530	9.0	712	--	--	--	--	--	--
JUN										
05...	1415	4870	10.0	522	--	--	--	--	--	--
18...	1230	4990	11.0	440	--	--	--	--	--	--
JUL										
09...	1435	5050	13.0	334	--	--	--	--	--	--
24...	1400	4850	13.5	252	9	13	15	17	21	33
30...	1145	4170	12.0	211	--	--	--	--	--	--
AUG										
22...	1615	793	19.0	162	28	31	36	44	58	70
SEP										
10...	1310	470	18.0	43	--	--	--	--	--	--
17...	1115	510	16.0	66	--	--	--	--	--	--

09357100 SAN JUAN RIVER AT HAMMOND BRIDGE NEAR BLOOMFIELD, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)
OCT										
04...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	60	77	99	100	34	82
NOV										
28...	--	--	--	--	--	--	--	--	--	--
DEC										
18...	--	--	--	--	--	--	--	--	--	--
JAN										
23...	--	--	--	--	--	--	--	--	--	--
FEB										
21...	--	--	--	--	--	--	--	--	--	--
MAR										
26...	--	--	--	--	--	--	--	--	--	--
APR										
10...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	1	1
MAY										
07...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
JUL										
09...	--	--	--	--	--	--	--	--	--	--
24...	48	69	99	100	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
AUG										
22...	--	--	--	--	--	88	98	100	--	--
SEP										
10...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
OCT										
04...	--	--	--	--	--	--	--	--	--	--
18...	98	99	99	100	--	--	--	--	--	--
NOV										
28...	--	--	--	--	--	--	--	--	--	--
DEC										
18...	--	--	--	--	--	--	--	--	--	--
JAN										
23...	--	--	--	--	--	--	--	--	--	--
FEB										
21...	--	--	--	--	--	--	--	--	--	--
MAR										
26...	--	--	--	--	--	--	--	--	--	--
APR										
10...	--	--	--	--	--	--	--	--	--	--
24...	30	67	--	--	77	88	89	89	93	100
MAY										
07...	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--
JUN										
05...	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--
JUL										
09...	--	--	--	--	--	--	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
AUG										
22...	--	--	--	--	--	--	--	--	--	--
SEP										
10...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--

09357250 GALLEGOS CANYON WASH NEAR FARMINGTON, NM

LOCATION.--Lat 36°38'27", long 108°07'33", in SE¼SE¼ sec.20, T.28 N., R.12 W., San Juan County, Hydrologic Unit 14080101, on right bank 100 ft (30 km) downstream from Navajo Indian Irrigation Project Highway bridge, 4.0 mi (6.4 km) upstream from mouth, and 7.0 mi (11.3 km) southwest of Farmington.

DRAINAGE AREA.--290 mi^2 (751 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,550 ft (1,692 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about, 900 ft^3/s (25.5 m^3/s) Jan. 17, 1979, gage height, 3.20 ft (0.975 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, about, 900 ft^3/s (25.5 m^3/s) Jan. 17, gage height, 3.20 ft (0.975 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	5.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.68	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.05	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	2.4	.00	.00	.00	1.9	.00
9	.00	.00	.00	.00	.00	.00	.80	.00	.00	.00	6.1	.00
10	.00	.00	.00	.00	.00	.00	3.2	.00	.00	.00	.05	.00
11	.00	.00	.00	.00	.00	.00	.35	.00	.00	.00	.00	.00
12	.00	3.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	2.0	.00	.00	.00	.00	.00	.00	.00	2.3	.00
16	.00	.00	6.9	.00	.00	.00	.00	.00	.00	.00	5.7	.00
17	.00	.00	8.0	150	.00	.00	.00	.00	.00	.00	.24	.00
18	.00	.00	9.3	75	.00	.00	.00	.00	.00	.00	1.2	.00
19	.00	.00	2.0	.00	.00	.48	.00	.00	.00	.00	.00	.00
20	10	.00	.00	.00	.00	2.5	.00	.00	.00	.00	.00	.00
21	2.0	.00	.00	.00	.00	6.5	.00	.00	.00	.00	.00	.00
22	1.0	.00	.00	.00	.00	7.3	.00	.00	.00	.00	.00	.00
23	8.0	.00	.00	.00	.00	3.0	.00	.00	.00	.00	.00	.00
24	9.0	3.0	.00	.00	.00	.43	.00	1.1	.00	.00	.00	.00
25	2.0	5.0	.00	.00	.00	.00	.00	3.0	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	1.2	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.61	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.54	---	.00	---	.00	.00	---
TOTAL	32.00	16.00	28.20	225.00	.00	21.36	6.75	5.30	.73	.00	17.49	.00
MEAN	1.03	.53	.91	7.26	.000	.69	.23	.17	.024	.000	.56	.000
MAX	10	5.0	9.3	150	.00	7.3	3.2	3.0	.68	.00	6.1	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	63	32	56	446	.00	42	13	11	1.4	.00	35	.00

CAL YR 1978 TOTAL 135.50 MEAN .37 MAX 10 MIN .00 AC-FT 269
WTR YR 1979 TOTAL 352.83 MEAN .97 MAX 150 MIN .00 AC-FT 700

NOTE: No gage-height record October 20 to December 14, December 19 to February 5, August 21 to September 30.

09357250 GALLEGOS CANYON WASH NEAR FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
OCT 24...	1530	10	1170	9.0	10.5	11.0	9.0	25	0	8.9	.7	250
DEC 18...	1430	10	720	8.5	5.5	.0	12.1	37	0	13	1.1	150
JAN 18...	1045	98	390	9.1	5.5	.0	11.7	19	0	6.9	.4	89
AUG 10...	0945	.04	1750	8.7	30.0	26.0	5.5	51	0	19	.8	360

DATE	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT 24...	22	3.0	650	35	591	330	30	1.3	12	739	992
DEC 18...	11	2.0	110	8	104	240	13	.4	5.6	515	488
JAN 18...	8.9	1.9	230	20	222	65	6.1	.4	—	280	304
AUG 10...	22	4.4	430	16	379	600	49	1.4	18	1170	1280

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
OCT 24...	.00	.00	23	23	3.80	160	280	--	7.3	>.20	--
DEC 18...	.90	.03	.97	1.9	.260	70	170	--	3.9	2.7	--
JAN 18...	.98	.49	4.7	6.2	1.70	50	230	--	6.9	--	--
AUG 10...	3.1	1.1	.00	3.7	2.10	160	780	20	18	--	29

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)
AUG 10...	0945	250	5	0	0	160	2	10	1	20	780

DATE	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
AUG 10...	8	30	20	.3	7	6	7	5.0	20	29

09357250 GALLEGOS CANYON WASH NEAR FARMINGTON, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
24...	1530	22000	69000
JAN			
18...	1045	K140	120000
AUG			
10...	0945	K360	29000

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)
OCT								
24...	1530	10	11.0	66200	--	--	--	--
DEC								
18...	1430	10	.0	1460	--	--	--	--
JAN								
18...	1045	98	.0	15500	--	--	--	--
AUG								
10...	0945	.04	26.0	61100	97	98	99	99
15...	1545	32	20.5	97300	--	--	--	--
15...	1625	5.8	20.5	117000	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)	SAMPLE SOURCE (72005)
OCT								
24...	--	--	--	--	--	--	--	--
DEC								
18...	--	--	--	--	--	--	--	--
JAN								
18...	--	--	--	--	--	--	--	--
AUG								
10...	100	3	4	22	69	97	100	29
15...	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--

09357300 SAN JUAN RIVER ABOVE ANIMAS RIVER, AT FARMINGTON, NM

LOCATION.--Lat 36°43'10", long 108°12'45", in NE¼SE¼NE¼ sec.20, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080101, 100 ft (30 m) upstream from mouth of Animas River, at south edge of Farmington, and at mile 99 (159 km).

DRAINAGE AREA.--5,800 mi^2 (15,000 km^2), approximately.

PERIOD OF RECORD.--Water years 1963 to current year. (discontinued).

REMARKS.--Discharges are estimated from the streamflow records of the San Juan River at Farmington and Animas River at Farmington stations.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)
OCT								
19...	0900	578	555	8.2	12.5	9.0	11.2	200
NOV								
16...	1630	665	600	8.2	4.0	6.0	9.4	170
DEC								
22...	0915	594	585	8.0	-9.0	.0	13.4	170
JAN								
25...	0900	798	465	7.8	3.0	1.0	13.7	170
FEB								
22...	0900	891	640	7.9	4.0	1.0	11.7	160
MAR								
15...	1500	1330	550	7.7	15.5	8.5	11.2	150
APR								
18...	1124	4680	326	7.9	25.5	6.0	10.8	110
MAY								
22...	1530	4960	330	8.2	24.5	11.0	11.2	120
JUN								
12...	1500	4480	319	8.1	27.0	10.5	10.4	120
JUL								
24...	1157	4590	282	8.2	29.5	11.0	10.0	98
AUG								
29...	1700	369	475	8.2	33.5	23.0	8.2	150
SEP								
25...	1500	1030	365	8.1	28.0	17.0	8.4	110

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT									
19...	--	62	10	53	1.6	2.6	110	180	5.9
NOV									
16...	--	54	7.8	63	2.1	2.8	100	190	6.5
DEC									
22...	72	55	8.3	59	2.0	2.7	100	190	6.3
JAN									
25...	80	55	7.8	42	1.4	2.3	89	160	5.3
FEB									
22...	57	52	6.7	70	2.4	2.5	100	190	5.6
MAR									
15...	49	49	6.4	56	2.0	4.1	100	160	5.8
APR									
18...	34	34	6.8	22	.9	2.4	79	66	3.8
MAY									
22...	35	36	6.9	20	.8	2.5	83	66	3.2
JUN									
12...	37	34	7.4	18	.7	2.2	78	61	2.9
JUL									
24...	27	29	6.1	14	.6	2.0	71	48	1.8
AUG									
29...	69	47	7.6	41	1.5	2.1	80	150	4.5
SEP									
25...	36	34	5.4	25	1.1	1.7	71	98	2.5

09357300 SAN JUAN RIVER ABOVE ANIMAS RIVER, AT FARMINGTON, NM

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
OCT								
19...	.2	11	366	--	.13	.04	60	< 10
NOV								
16...	.3	11	--	--	.23	.00	60	10
DEC								
22...	.2	11	--	394	.29	.01	50	< 0
JAN								
25...	.2	11	--	338	.27	.04	40	10
FEB								
22...	.3	9.3	--	398	.20	.04	60	10
MAR								
15...	.3	9.7	--	352	.17	.02	60	10
APR								
18...	.2	9.4	--	193	.17	.00	40	10
MAY								
22...	.4	9.2	197	195	.13	.00	40	10
JUN								
12...	.1	8.8	--	182	.10	.00	20	20
JUL								
24...	.2	12	--	156	.11	.01	10	30
AUG								
29...	.2	12	--	313	.11	.03	40	20
SEP								
25...	.3	9.7	--	219	.02	.01	40	<10

09363500 ANIMAS RIVER NEAR CEDAR HILL, NM

LOCATION.--Lat 37°02'17", long 107°52'25", in sec.7, T 32 N., R.9 W., La Plata County, Colorado, Hydrologic Unit 14080104, on right bank 0.8 mi (1.3 km) downstream from Florida River, 2.5 mi (4.0 km) upstream from Colorado-New Mexico State line, 8.5 mi (13.7 km) north of Cedar Hill, and at mile 32.9 (52.9 km).

DRAINAGE AREA.--1,090 mi^2 (2,820 km^2), approximately.

PERIOD OF RECORD.--October 1933 to current year. Monthly discharge only for October and November 1933, published in WSP 1313.

REVISED RECORDS.--WSP 1563: 1940 and 1946 (monthly figures only).

GAGE.--Water-stage recorder. Altitude of gage is 5,960 ft (1,817 m), from topographic map. Prior to Sept. 14, 1937, at datum between 1.52 ft (0.46 m) and 1.36 ft (0.41 m) higher. Sept. 15, 1937, to Sept. 30, 1946, at datum 1.36 ft (0.41 m) higher.

REMARKS.--Records good except those for winter period, which are poor. Diversions for irrigation of about 20,000 acres (81 km^2) above station. During water years 1944-49, Twin Rocks Canal diverted above station for irrigation below. Slight regulation by Lemon Dam about 30 mi (48 km) upstream on Florida River since November 1963 (capacity, 40,100 acre-ft or 49.4 hm^3). Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--46 years, 891 ft^3/s (25.23 m^3/s), 645,500 acre-ft/yr (796 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 13,100 ft^3/s (371 m^3/s) June 19, 1949, gage height, 11.45 ft (3.490 m); minimum, 63 ft^3/s (1.78 m^3/s) Jan. 21, 1935.

EXTREMES OUTSIDE PERIOD OF RECORD.--A major flood occurred in October 1911 at this location.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft^3/s (110 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
May 28	1545	*8,710	247	10.00	3.048	June 16	1815	7,420	210	9.39	2.862
June 7	1445	8,660	245	10.04	3.060	June 24	1100	5,540	157	8.24	2.512

Minimum daily, 140 ft^3/s (3.96 m^3/s) Jan. 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	295	247	273	195	250	315	840	2820	6250	4310	1010	431
2	276	249	302	160	270	310	731	2840	5540	4500	939	410
3	266	424	266	140	250	350	669	2760	5330	4290	873	406
4	258	304	250	180	240	310	688	2470	5690	3810	825	394
5	252	271	225	270	240	290	870	2580	6210	3250	772	388
6	243	265	265	270	240	280	1210	3070	6970	2940	733	371
7	248	257	255	250	235	300	1510	3760	7990	2790	717	360
8	237	251	230	226	230	330	1730	3610	7750	2900	725	274
9	214	247	240	224	230	381	1740	2980	6560	2900	739	258
10	206	246	240	220	235	368	2120	2410	5120	2780	729	254
11	195	282	250	210	240	370	1410	2000	4790	2600	689	254
12	191	628	260	270	260	414	999	1760	5350	2440	706	258
13	187	510	280	270	280	505	882	1630	6210	2360	926	258
14	182	366	295	230	320	576	1100	1790	6570	2300	786	266
15	201	336	275	250	330	682	1550	2410	6620	2220	781	266
16	220	311	265	240	340	706	2140	3090	6950	2050	873	278
17	212	295	250	270	335	675	2730	3490	6800	2020	916	306
18	178	284	325	420	310	609	3120	3620	5830	1900	740	302
19	174	281	410	300	290	595	3380	4560	4320	1770	652	286
20	175	276	340	280	275	664	2990	5230	3450	1620	620	285
21	203	251	240	250	320	728	2970	5300	3430	1550	634	297
22	259	252	235	240	300	719	3250	5850	4250	1550	597	307
23	267	276	240	230	290	737	3500	6510	4740	1550	551	299
24	278	276	235	230	270	764	3880	6180	5330	1420	509	298
25	303	440	235	250	270	861	3450	5640	5010	1390	472	302
26	269	335	230	280	300	987	2970	5790	5260	1290	440	296
27	267	293	220	260	310	1040	2740	7290	5120	1210	430	295
28	262	277	220	240	330	900	2840	8330	5060	1140	406	298
29	248	258	235	250	---	1280	3190	8090	5010	1210	378	289
30	249	264	240	225	---	953	2900	8180	4370	1210	372	279
31	250	---	250	215	---	1040	---	7430	---	1120	474	---
TOTAL	7265	9252	8076	7545	7790	19039	64099	133470	167880	70390	21014	9265
MEAN	234	308	261	243	278	614	2137	4305	5596	2271	678	309
MAX	303	628	410	420	340	1280	3880	8330	7990	4500	1010	431
MIN	174	246	220	140	230	280	669	1630	3430	1120	372	254
AC-FT	14410	18350	16020	14970	15450	37760	127100	264700	333000	139600	41680	18380

CAL YR 1978 TOTAL 314475 MEAN 862 MAX 4700 MIN 173 AC-FT 623800
WTR YR 1979 TOTAL 525085 MEAN 1439 MAX 8330 MIN 140 AC-FT 1042000

09364500 ANIMAS RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'17", long 108°12'05", in SW¼SW¼ sec.15, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080104, in Boyd City Park, on right bank 900 ft (274 m) upstream from bridge on former State Highway 17, 0.4 mi (0.6 km) downstream from bridge on State Highway 17 in Farmington, and 1.5 mi (2.4 km) upstream from mouth.

DRAINAGE AREA.--1,360 mi^2 (3,520 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1904 to October 1905 (published as "near Farmington"), September 1912 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1243: 1931. WSP 1313: 1913.

GAGE.--Water-stage recorder. Altitude of gage is 5,280 ft (1,609 m), from topographic map. Prior to Nov. 1, 1905, non-recording gage at old bridge 0.1 mi (0.2 km) upstream at different datum. Sept. 17, 1912, to Oct. 4, 1938, water-stage recorder at site 0.8 mi (1.3 km) downstream at lower datums (datum lowered 2.0 ft or 0.61 m Aug. 15, 1927, and raised 0.2 ft or 0.06 m Dec. 16, 1929). Oct. 5, 1938 to Nov. 1, 1973 at site 900 ft (274 m) downstream at datum 1.74 ft (0.53 m) lower.

REMARKS.--Water-discharge records good except those for winter period, which are fair. Diversions for irrigation of about 30,000 acres (120 km^2) above station.

AVERAGE DISCHARGE.--68 years, 915 ft^3/s (25.91 m^3/s), 662,900 acre-ft/yr (817 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 25,000 ft^3/s (710 m^3/s) June 29, 1927, gage height, 8.5 ft (2.59 m), site and datum then in use, from rating curve extended above 10,000 ft^3/s (283 m^3/s); minimum, 1.0 ft^3/s (0.028 m^3/s) Aug. 11, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911, when a stage of about 16.5 ft (5.0 m) was reached (datum in use Oct. 1938 to Nov. 1973). Flood of Sept. 6, 1909, reached a stage of 11.1 ft (3.38 m), 1904-5 site and datum (discharge, about 19,000 ft^3/s or 540 m^3/s).

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 4,000 ft^3/s (110 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Apr. 24	1300	4,390	124	7.80	2.377	June 17	0015	6,680	189	8.98	2.737
May 28	1930	*8,390	238	9.77	2.978	June 24	1800	4,980	141	8.10	2.469
June 8	0045	8,110	230	9.64	2.938						

Minimum daily, 86 ft^3/s (2.44 m^3/s) Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	230	233	269	240	291	370	1090	3360	5880	4260	796	349
2	219	244	289	206	313	370	923	3300	5060	4320	758	344
3	193	560	305	184	297	406	827	3200	4780	4440	696	314
4	178	460	270	282	273	359	786	2950	5020	3960	639	298
5	172	336	263	308	275	321	909	2860	5530	3410	599	285
6	183	299	314	318	270	313	1230	3180	6150	3100	543	277
7	160	285	237	301	267	335	1670	3800	7320	2950	525	257
8	152	269	213	264	261	427	2040	3780	7580	2980	520	233
9	137	260	221	262	263	557	2250	3180	6530	2980	496	227
10	120	262	224	257	263	504	2420	2700	5100	2900	494	213
11	109	255	222	296	264	490	1970	2280	4660	2770	492	198
12	124	525	255	296	286	543	1430	1990	4960	2620	485	202
13	95	680	326	311	329	660	1220	1850	5610	2510	695	207
14	86	473	348	277	359	792	1310	1890	5970	2430	749	203
15	90	407	319	284	382	896	1760	2330	6080	2350	658	206
16	93	377	309	276	384	1010	2410	3000	6170	2180	765	199
17	106	344	309	306	385	1010	3250	3580	6230	2110	856	185
18	103	325	389	488	366	874	3550	3680	5610	2050	819	179
19	88	315	470	410	325	896	3840	4350	4350	1820	681	176
20	88	300	403	316	315	878	3480	5050	3400	1550	630	179
21	110	290	283	287	353	1150	3400	5210	3240	1450	626	183
22	147	288	277	284	339	996	3480	5550	3670	1400	610	184
23	223	285	281	258	329	1040	3780	6140	4300	1380	565	187
24	293	300	274	263	311	1030	4160	6180	4660	1260	523	176
25	405	512	274	283	311	1060	3940	5600	4520	1200	477	174
26	314	452	267	328	343	1220	3620	5550	4570	1130	425	185
27	285	349	254	296	361	1340	3400	6440	4550	1100	406	175
28	278	297	251	278	378	1120	3360	8060	4620	1030	360	175
29	270	282	274	281	---	1460	3620	7450	4710	965	343	174
30	248	266	279	264	---	1190	3550	7560	4410	963	338	171
31	226	---	284	242	---	1260	---	7190	---	909	343	---
TOTAL	5525	10530	8953	8946	8893	24877	74675	133240	155240	70477	17912	6515
MEAN	178	351	289	289	318	802	2489	4298	5175	2273	578	217
MAX	405	680	470	488	385	1460	4160	8060	7580	4440	856	349
MIN	86	233	213	184	261	313	786	1850	3240	909	338	171
AC-FT	10960	20890	17760	17740	17640	49340	148100	264300	307900	139800	35530	12920

CAL YR 1978 TOTAL 298392 MEAN 818 MAX 4790 MIN 20 AC-FT 591900
WTR YR 1979 TOTAL 525783 MEAN 1441 MAX 8060 MIN 86 AC-FT 1043000

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1940 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: October 1941 to current year.
WATER TEMPERATURES: December 1950 to current year.
SUSPENDED SEDIMENT DISCHARGE: December 1950 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,980 micromhos Aug. 19, 1944; minimum daily, 146 micromhos July 11, 1975.
WATER TEMPERATURES: Maximum, 32.0°C Aug. 26, 1966, July 16, 1977; minimum, 0.0°C on many days during winter months (each year).

SEDIMENT CONCENTRATIONS: Maximum daily, 36,800 mg/L July 23, 1954; minimum daily, 1 mg/L on several days during September 1956, September 1958, and September 1974.
SEDIMENT LOADS: Maximum daily, 337,000 tons (306,000 tonnes) July 23, 1954; minimum daily, less than .50 ton (.45 tonne) on many days during 1955-57, 1959, 1960, 1963, 1972, 1974, and 1978.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,040 micromhos Oct. 16; minimum daily, 183 micromhos June 17.
WATER TEMPERATURES: Maximum, 27.0°C Aug. 6; minimum, 0.0°C on several days during January and February.
SEDIMENT CONCENTRATIONS: Maximum daily, 13,300 mg/L Apr. 8; minimum daily, 3 mg/L Sept. 11.
SEDIMENT LOADS: Maximum daily, 73,400 tons (66,600 tonnes) Apr. 8; minimum daily, 1.6 tons (1.5 tonnes) Sept. 11.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)
DEC										
19...	1400	462	835	8.2	4.0	2.0	320	11.2	30	330
MAR										
13...	1500	644	710	8.3	18.5	8.5	1300	10.4	51	270
APR										
19...	0700	3840	345	8.1	10.0	8.0	660	10.1	140	170
MAY										
22...	1330	5570	270	7.7	29.5	12.5	--	9.6	--	110
JUN										
12...	1300	5170	265	7.9	28.0	12.5	66	9.4	13	110
JUL										
24...	1515	1180	383	8.2	33.5	22.0	8.4	8.2	7	150
AUG										
30...	0705	336	657	8.1	17.5	17.5	4.5	7.6	11	270
SEP										
25...	1200	176	800	8.4	25.5	19.5	7.4	9.3	11	320

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
DEC									
19...	180	110	14	52	1.2	4.0	150	240	27
MAR									
13...	120	86	14	46	1.2	3.1	150	170	19
APR									
19...	58	49	11	11	.4	1.9	110	75	4.2
MAY									
22...	40	--	6.0	6.7	.3	--	--	--	--
JUN									
12...	44	36	5.7	6.0	.2	1.2	69	42	3.8
JUL									
24...	73	50	6.9	13	.5	1.8	80	79	8.5
AUG									
30...	130	87	13	33	.9	3.9	140	170	21
SEP									
25...	170	100	16	47	1.2	3.7	150	240	28

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
DEC 19...	.3	8.7	538	548	.24	.35	.04	--	1.3
MAR 13...	.5	7.9	443	439	.40	.40	.13	--	2.2
APR 19...	.3	6.4	231	226	.27	.21	.02	--	4.0
MAY 22...	--	--	--	149	--	--	--	--	.53
JUN 12...	.1	5.1	154	142	.12	.13	.06	--	.59
JUL 24...	.3	5.8	228	213	.01	.00	.01	--	.41
AUG 30...	.5	6.3	420	419	.06	.02	.07	--	.07
SEP 25...	.4	4.9	517	530	.01	.01	.03	.01	.33

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
DEC 19...	1.5	.350	.02	120	10	100	--	2.3	5.0
MAR 13...	2.7	.620	.03	50	10	50	--	3.2	1.3
APR 19...	4.3	1.20	.00	40	20	--	45	7.4	.6
MAY 22...	.71	--	--	330	--	--	--	4.3	--
JUN 12...	.77	.160	.00	20	20	--	6.2	3.0	.9
JUL 24...	.43	.020	.00	30	10	--	2.9	3.0	.6
AUG 30...	.20	.080	.01	70	10	30	--	3.1	.6
SEP 25...	.37	.010	.00	100	<10	--	3.1	1.9	.5

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
DEC 19...	1400	2	1	200	100	120	7	7	20	0
MAR 13...	1500	6	1	900	200	50	0	0	20	0
MAY 22...	1330	--	1	--	--	330	--	--	--	--
AUG 30...	0705	1	1	0	100	70	1	<1	<10	10

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
DEC 19...	7	0	28	2	15000	10	80	39	640
MAR 13...	17	0	70	1	27000	10	53	0	1400
MAY 22...	--	--	--	--	--	--	--	--	--
AUG 30...	0	< 3	9	4	330	10	6	0	80

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
DEC 19...	100	.1	.0	2	1	2	0	180	20
MAR 13...	50	.2	.1	4	5	0	0	350	10
MAY 22...	--	--	--	--	--	--	--	--	--
AUG 30...	30	.5	.0	1	1	0	0	40	10

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DISSOLVED, EXTRACTION (UG/L) (80020)
DEC 19...	1400	11	47	4.9	24	4.5	22	.08	3.6
MAR 13...	1500	<7.1	130	4.4	74	4.1	71	.10	3.9

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
APR 19...	0700	800	700
MAY 22...	1330	290	520
JUN 12...	1300	200	480
JUL 24...	1515	18	27
AUG 30...	0705	930	370
SEP 25...	1200	160	160

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	MAY 22.79		JUN 12,79		JUL 24 79		AUG 30,79		SEP 25,79	
TIME	1330		1300		1515		0705		1200	
TOTAL CELLS/ML	270		0		1400		2400		1000	
DIVERSITY: DIVISION	1.1		0.0		0.0		0.3		0.6	
.CLASS	1.1		0.0		0.9		0.3		0.6	
..ORDER	1.1		0.0		0.9		0.3		0.6	
...FAMILY	1.5		0.0		1.4		1.4		1.5	
....GENUS	1.5		0.0		1.4		1.4		1.5	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	--	-	--	-	41	2	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	13	5	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	--	-	41	2	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	13	1	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	21	1	--	-
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	170	7	--	-
...FRAGILARIACEAE										
....SYNEDRA	--	-	--	-	39	3	1900#	78	--	-
...NAVICULACEAE										
....NAVICULA	26	10	--	-	13	1	83	3	--	-
...NITZSCHIACEAE										
....NITZSCHIA	13	5	--	-	350#	25	120	5	90	9
...SURIRELLACEAE										
....SURIRELLA	39	14	--	-	90	6	41	2	--	-
.CHRYSOPHYCEAE										
..CHRYSOMONADALES										
...OCHROMONADACEAE										
....OCHROMONAS	--	-	--	-	900#	64	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)										
.CRYPTOPHYCEAE										
..CRYPTOMONADALES										
...CRYPTOMONADACEAE										
....CRYPTOMONAS	--	-	--	-	--	-	21	1	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...NOSTOCACEAE										
....ANABAENA	--	-	--	-	--	-	--	-	460#	46
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	440#	43
....OSCILLATORIA	180#	67	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	26	3

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PERIPHYTON

DATE	TIME	LENGTH OF EXPO-SURE (DAYS) (00022)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	SAMPLING METHOD
SEP								
25...	1200	26	18.3	17.9	4.93	.570	81.1	Polethylene strip

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)
DEC										
19...	1400	462	2.0	1020	1270	35	42	--	53	--
FEB										
17...	1430	316	6.0	1470	1250	49	64	--	91	--
MAR										
13...	1500	644	8.5	2470	4300	48	57	--	88	--
20...	1710	836	7.0	3130	7070	37	50	--	78	--
29...	1740	1410	6.0	5050	19200	36	43	--	61	--
APR										
07...	1420	1540	13.0	6380	26500	36	43	--	56	--
19...	0700	3840	8.0	5110	53000	30	36	--	52	--
21...	1200	3400	12.0	1600	14700	21	26	--	39	--
MAY										
22...	1330	5570	12.5	830	12500	19	23	--	32	--
24...	0705	6400	13.0	823	14200	23	32	34	38	44
28...	0600	8240	11.0	1260	28000	23	27	--	39	--
JUN										
12...	1300	5170	12.5	487	6800	13	20	23	29	39
JUL										
24...	1515	1180	22.0	34	108	--	--	--	--	--
AUG										
30...	0705	336	17.5	13	12	--	--	--	--	--
SEP										
25...	1200	176	19.5	16	7.6	--	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)
DEC									
19...	80	91	99	100	--	--	--	--	--
FEB									
17...	--	--	--	--	--	98	100	--	--
MAR									
13...	--	--	--	--	--	97	98	99	100
20...	91	95	99	100	--	--	--	--	--
29...	83	92	97	99	100	--	--	--	--
APR									
07...	78	91	98	100	--	--	--	--	--
19...	72	84	96	100	--	--	--	--	--
21...	57	72	90	100	--	--	--	--	--
MAY									
22...	61	77	87	100	--	--	--	--	--
24...	56	73	90	100	--	--	--	--	--
28...	67	81	94	100	--	--	--	--	--
JUN									
12...	59	76	88	100	--	--	--	--	--
JUL									
24...	--	--	--	--	--	63	76	86	100
AUG									
30...	--	--	--	--	--	98	99	100	--
SEP									
25...	--	--	--	--	--	99	100	--	--

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	820	763	648	354	244	201	475	650
2	840	---	---	---	772	750	623	357	258	193	500	658
3	862	---	---	---	747	743	698	377	246	217	500	620
4	884	---	---	---	738	818	750	368	244	214	505	628
5	915	---	---	---	764	816	543	389	227	253	500	700
6	871	---	---	---	795	794	543	383	219	257	510	647
7	849	---	---	708	768	810	416	311	210	249	510	689
8	---	---	---	760	740	720	416	303	208	250	540	680
9	895	---	---	806	734	690	431	367	222	239	550	700
10	---	---	---	762	720	715	431	366	250	240	520	691
11	---	---	---	761	745	748	554	426	251	249	560	792
12	---	---	---	732	727	712	545	426	249	265	530	712
13	---	---	---	676	710	685	611	442	190	262	540	730
14	975	---	---	748	755	647	593	427	189	275	500	722
15	---	639	---	748	742	609	415	333	187	282	500	726
16	1040	---	---	725	762	575	419	323	187	278	520	688
17	---	684	---	723	756	568	357	297	183	299	530	760
18	---	---	---	694	759	602	358	295	229	301	500	743
19	---	---	788	715	753	629	367	296	231	358	500	742
20	---	---	---	764	830	694	353	264	263	343	530	748
21	---	---	---	746	768	709	365	259	248	364	530	780
22	---	---	---	746	798	648	358	260	242	360	540	751
23	---	---	---	785	791	635	322	251	218	358	550	773
24	---	---	---	822	820	603	323	250	200	355	560	750
25	---	---	---	791	798	600	346	246	203	377	580	775
26	---	---	---	770	790	567	350	252	192	384	570	771
27	---	---	---	752	780	546	364	242	199	420	600	772
28	---	---	---	773	774	531	365	241	185	412	580	735
29	---	---	---	772	---	525	348	251	188	443	675	735
30	---	---	---	801	---	571	346	233	193	450	600	740
31	---	---	---	807	---	582	---	233	---	478	661	---
MEAN	903	662	788	755	766	665	452	317	219	311	541	720

WTR YR 1979 MEAN 535 MAX 1040 MIN 183
NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	1.0	---	8.0	13.0	10.0	15.0	22.0	20.0
2	14.5	---	---	---	3.0	4.0	8.0	13.0	12.0	15.0	22.0	23.0
3	13.0	---	---	---	.0	4.0	9.0	14.0	12.0	16.0	22.0	25.0
4	13.0	---	---	---	.0	6.0	10.0	14.0	12.0	16.0	24.0	25.0
5	12.5	---	---	---	.0	8.0	12.0	13.0	11.0	17.0	25.0	25.0
6	13.0	---	---	---	.0	10.0	15.0	12.0	12.0	18.0	27.0	23.0
7	12.5	---	---	.0	.0	12.0	13.0	10.0	12.0	18.0	26.0	22.0
8	---	---	---	.0	2.0	10.0	12.0	8.0	11.0	18.0	25.0	22.0
9	12.0	---	---	.0	3.0	9.0	8.0	8.0	10.0	18.0	25.0	23.0
10	---	---	---	.0	5.0	10.0	6.0	9.0	12.0	15.0	24.0	23.0
11	---	---	---	1.0	5.0	11.0	7.0	12.0	16.0	18.0	24.0	23.0
12	---	---	---	2.0	5.0	11.0	8.0	14.0	15.0	18.0	24.0	22.0
13	---	---	---	1.0	8.0	11.0	9.0	12.0	16.0	18.0	25.0	22.0
14	12.0	---	---	.0	8.0	11.0	10.0	17.0	17.0	19.0	24.0	19.0
15	---	6.0	---	4.0	8.0	10.0	12.0	16.0	16.0	21.0	23.0	19.0
16	13.0	---	---	3.0	7.0	8.0	14.0	15.0	13.0	20.0	21.0	23.0
17	---	3.0	---	4.0	6.0	6.0	14.0	14.0	11.0	18.0	20.0	24.0
18	---	---	---	4.0	4.0	7.0	14.0	13.0	14.0	17.0	19.0	24.0
19	---	---	2.0	4.0	4.0	8.0	13.0	12.0	13.0	20.0	19.0	25.0
20	---	---	---	2.0	4.0	7.0	12.0	17.0	16.0	21.0	19.0	25.0
21	---	---	---	2.0	4.0	6.0	12.0	12.0	16.0	21.0	19.0	24.0
22	---	---	---	3.0	4.0	7.0	12.0	13.0	17.0	22.0	18.0	23.0
23	---	---	---	1.0	5.0	8.0	12.0	13.0	11.0	21.0	20.0	22.0
24	---	---	---	1.0	7.0	10.0	11.0	13.0	15.0	21.0	24.0	25.0
25	---	---	---	1.0	6.0	11.0	12.0	13.0	16.0	24.0	19.0	24.0
26	---	---	---	.0	5.0	10.0	12.0	10.0	16.0	24.0	23.0	24.0
27	---	---	---	.0	6.0	8.0	13.0	11.0	16.0	24.0	25.0	24.0
28	---	---	---	.0	7.0	7.0	13.0	11.0	17.0	24.0	---	20.0
29	---	---	---	1.0	---	6.0	13.0	10.0	18.0	23.0	22.0	15.0
30	---	---	---	.0	---	7.0	13.0	10.0	17.0	22.0	19.0	23.0
31	---	---	---	.0	---	8.0	---	12.0	---	---	20.0	---
MEAN	13.0	4.5	2.0	1.5	4.0	8.5	11.0	12.5	14.0	19.5	22.5	22.5

WTR YR 1979 MEAN 13.0 MAX 27.0 MIN .0
NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

09364500 ANIMAS RIVER AT FARMINGTON, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	113	70	114	72	108	78	108	70	84	66	478	478
2	98	58	300	198	110	86	102	57	165	139	644	643
3	80	42	6630	10500	111	91	112	56	600	481	604	662
4	68	33	3040	3780	126	92	156	119	311	229	180	174
5	68	32	840	762	129	92	160	133	113	84	174	151
6	81	40	332	268	148	125	177	152	390	284	212	179
7	60	26	250	192	119	76	165	134	194	140	218	197
8	46	19	186	135	149	86	99	71	186	131	890	1030
9	33	12	137	96	265	158	905	640	145	103	1830	2750
10	31	10	115	81	378	229	1050	729	120	85	1450	1970
11	32	9.4	96	66	450	270	278	222	104	74	1250	1650
12	29	9.7	7600	15400	490	337	119	95	158	122	1430	2100
13	35	9.0	6510	12000	531	467	198	166	148	131	2060	3670
14	36	8.4	550	702	558	524	100	75	196	190	2190	4680
15	33	8.0	261	287	547	471	79	61	231	238	2130	5150
16	29	7.3	254	259	552	461	104	78	585	607	2490	6790
17	30	8.6	274	254	625	521	105	87	675	702	2750	7500
18	28	7.8	244	214	704	739	579	881	380	376	1550	3660
19	28	6.7	209	178	1040	1320	365	404	337	296	1310	3170
20	28	6.7	189	153	559	608	600	512	343	292	2780	6590
21	31	9.2	170	133	295	225	115	89	340	324	3540	11000
22	44	17	157	122	259	194	93	71	335	307	2710	7290
23	121	73	135	104	322	244	76	53	229	203	2580	7240
24	126	100	156	126	320	237	379	297	159	134	3400	9460
25	164	179	4980	6900	312	231	136	104	147	123	3840	11000
26	118	100	1850	2260	250	180	76	67	261	242	3950	13000
27	112	86	317	299	296	203	68	54	334	326	5720	20700
28	113	85	210	168	270	183	72	54	438	447	5760	17400
29	107	78	149	113	227	168	78	59	---	---	5320	21000
30	110	74	116	83	137	103	114	81	---	---	3120	10000
31	108	66	---	---	115	88	73	48	---	---	2090	7110
TOTAL	---	1290.8	---	55905	---	8887	---	5719	---	6876	---	188394

DAY	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)	MEAN CONCENTRATION (MG/L)	LOADS (T/DAY)
	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
1	2580	7590	446	4050	537	8530	260	2990	38	82	97	91
2	2600	6480	665	5930	500	6830	267	3110	30	61	13	12
3	1200	2680	705	6090	364	4700	197	2360	31	58	14	12
4	1190	2530	433	3450	450	6100	200	2140	33	57	7	5.6
5	3100	7610	356	2750	478	7140	182	1680	38	61	11	8.5
6	3730	12300	403	3460	822	13600	173	1450	99	145	24	18
7	6280	28700	771	7910	909	18000	214	1700	151	214	34	24
8	13300	73400	1070	10100	750	15300	218	1750	68	95	14	8.8
9	6920	42000	460	3950	558	9840	118	949	54	72	7	4.3
10	4170	27200	331	2410	430	5920	90	705	56	75	4	2.3
11	2610	13900	340	2090	351	4420	66	494	48	64	3	1.6
12	980	3780	599	3220	385	5160	101	714	147	192	6	3.3
13	1990	6560	391	1950	458	6940	123	834	240	450	7	3.9
14	1510	5340	337	1720	552	8900	75	492	164	332	5	2.7
15	2920	13900	512	3220	452	7420	94	596	175	311	42	23
16	4080	26500	795	6440	543	9050	106	624	255	527	13	7.0
17	3050	26800	615	5940	474	7970	59	336	315	728	37	18
18	5200	49800	519	5160	335	5070	68	376	143	316	34	16
19	3090	32000	655	7690	320	3760	301	1480	94	173	38	18
20	2050	19300	810	11000	263	2410	93	389	56	95	29	14
21	1640	15100	810	11400	371	3250	114	446	34	57	14	6.9
22	1840	17300	860	12900	496	4910	66	249	37	61	8	4.0
23	1760	18000	1250	20700	353	4100	37	138	71	108	12	6.1
24	2010	22600	950	15900	364	4580	34	116	109	154	32	15
25	1450	15400	567	8570	354	4320	30	97	37	48	21	9.9
26	1180	11500	641	9610	340	4200	31	95	51	59	9	4.5
27	900	8260	1330	23100	291	3570	45	134	33	36	8	3.8
28	1330	12100	1180	25700	372	4640	36	100	27	26	11	5.2
29	664	6490	937	18800	360	4580	27	70	14	13	73	34
30	475	4550	590	12000	250	2980	35	91	15	14	15	6.9
31	---	---	663	12900	---	---	32	79	14	13	---	---
TOTAL	---	539670	---	270110	---	198190	---	26784	---	4697	---	390.3

TOTAL LOAD FOR YEAR: 1306913.1 TONS.

09365000 SAN JUAN RIVER AT FARMINGTON, NM

LOCATION.--Lat 36°43'22", long 108°13'30", in NW¼SE¼ sec.17, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080105, on left bank 360 ft (110 m) downstream from highway bridge on State Highway 371 in Farmington, 4,000 ft (1,200 m) downstream from Animas River, 2.3 mi (3.7 km) upstream from La Plata River, and at mile 251.4 (404.5 km).

DRAINAGE AREA.--7,240 mi^2 (18,750 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June to December 1904, January 1905 to September 1906 (gage heights and discharge measurements only), September 1912 to current year. Monthly discharge only for some periods, published in WSP 1313. Discharge records for January to December 1905, published in WSP 175, are unreliable and should not be used.

REVISED RECORDS.--WSP 1119: Drainage area. WSP 1243: 1938. WSP 1313: 1905, 1914. See also PERIOD OF RECORD.

GAGE.--Water-stage recorder. Datum of gage is 5,230.37 ft (1,594.217 m) National Geodetic Vertical Datum of 1929. See WSP 1313 or 1733 for history of changes prior to Nov. 19, 1933.

REMARKS.--Water-discharge records good. Since June 1962 flow is partly controlled by operation of Navajo Reservoir (station 09355100) 50 mi (80 km) upstream. Diversions above station for irrigation of about 86,000 acres (350 km^2), 4,000 of which is irrigated by Farmers Mutual ditch which diverts from Animas River and bypasses this station; ditch flow not included in record. At times this ditch may be supplied partly or entirely by diversion from San Juan River below this station. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--67 years (water years 1913-79), 2,372 ft^3/s (67.18 m^3/s), 1,719,000 acre-ft/yr (2.12 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, about 68,000 ft^3/s (1,930 m^3/s) June 29, 1927, gage height, 10.2 ft (3.109 m), site and datum then in use, from rating curve extended above 37,000 ft^3/s (1,050 m^3/s); minimum, 14 ft^3/s (0.40 m^3/s) Aug. 22, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911. Flood of Sept. 6, 1909, reached a stage of about 12.3 ft (3.8 m), site and datum in use May to September 1906.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12,500 ft^3/s (354 m^3/s) May 28, gage height, 7.52 ft (2.292 m); minimum daily, 481 ft^3/s (13.6 m^3/s) Sept. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	964	898	927	922	989	1130	5370	7020	10800	9110	4440	627
2	922	914	918	831	1010	1130	5120	6720	9880	9250	4270	631
3	894	1810	903	790	945	1130	4970	6950	9420	9230	4000	618
4	791	1190	862	892	901	1110	4840	6500	9510	8900	3730	603
5	699	973	871	882	945	1070	4810	6420	10100	8190	3690	593
6	734	938	940	923	890	1060	5190	6980	10800	7820	3560	574
7	771	933	798	966	890	1160	5840	7700	11400	7670	3170	567
8	764	961	811	901	870	1730	6260	8040	10100	7690	2950	511
9	735	967	778	883	880	2220	6680	8100	11500	7780	2670	496
10	719	969	778	855	901	1510	7040	7350	10000	7640	2560	481
11	708	939	786	865	901	1550	6600	6930	9250	7470	2410	487
12	689	1220	847	894	1050	1760	5920	6510	9360	7290	2410	488
13	650	1340	955	908	1040	1930	5850	6480	10000	7160	2540	492
14	619	1190	958	845	1430	2070	6170	6380	10600	7050	2450	515
15	624	1110	922	867	2490	2180	6340	7130	10900	6960	2330	545
16	643	1060	928	920	2440	2410	6880	7890	11000	6800	2400	571
17	682	1010	943	1300	2580	3000	7870	8560	11200	6730	2190	582
18	686	967	1360	1620	1900	2910	8140	8630	10500	6790	2100	575
19	689	927	1350	2050	1670	2890	8430	9140	9290	6620	1880	575
20	692	904	1310	1070	1610	2930	8040	9900	8000	6370	1810	578
21	856	884	977	891	1320	3310	7770	10300	7580	6300	1740	598
22	886	886	907	863	1190	3080	7960	10500	8190	6220	1510	600
23	948	894	900	819	1080	3030	8300	11400	9050	6120	1230	614
24	1090	947	931	1040	1060	3070	8740	11300	9400	5820	960	622
25	1200	1410	902	1010	1050	3160	8450	10800	9390	5610	842	944
26	987	1060	900	1000	1060	3400	8110	10700	9320	5390	778	1170
27	980	965	875	912	1110	3910	7660	11300	9350	5140	756	1170
28	1010	919	898	912	1130	4160	7200	12300	9410	4950	582	1200
29	992	926	929	967	---	4580	7410	12200	9520	4910	560	1210
30	945	918	966	945	---	4950	7370	12000	9280	4860	585	1210
31	906	---	997	923	---	5230	---	11900	---	4690	611	---
TOTAL	25475	31029	29127	30466	35332	78760	205330	274030	294100	212530	67714	20447
MEAN	822	1034	940	983	1262	2541	6844	8840	9803	6856	2184	682
MAX	1200	1810	1360	2050	2580	5230	8740	12300	11500	9250	4440	1210
MIN	619	884	778	790	870	1060	4810	6380	7580	4690	560	481
AC-FT	50530	61550	57770	60430	70080	156200	407300	543500	583300	421600	134300	40560

CAL YR 1978 TOTAL 494852 MEAN 1356 MAX 5400 MIN 268 AC-FT 981500
WTR YR 1979 TOTAL 1304340 MEAN 3574 MAX 12300 MIN 481 AC-FT 2587000

09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.----Water years 1962 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: May 1962 to current year.
WATER TEMPERATURES: June 1962 to current year.
HARDNESS: May 1962 to current year.
DISSOLVED SOLIDS: 1962 to current year.

REMARKS.--Daily chemical samples are collected by transversing the stream cross section.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: Maximum daily, 2,290 micromhos Aug. 8, 1970; minimum daily, 154 micromhos May 13, 1962.
WATER TEMPERATURES: Maximum, 33.0°C July 6, 1967; minimum, 0.0°C on several days during December and January of most years.
HARDNESS: Maximum, 820 mg/L Aug. 6, 1968; minimum, 65 mg/L May 11-15, 1962.
DISSOLVED SOLIDS: Maximum, 1,720 mg/L Aug. 8, 1970; minimum, 103 mg/L May 11-15, 1962.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 884 micromhos Mar. 8; minimum daily, 231 micromhos June 13.
WATER TEMPERATURES: Maximum, 24.0°C Aug. 29; minimum, 0.0°C on several days during December and January.
HARDNESS: Maximum, 250 mg/L Jan. 25, Nov. 7; minimum, 98 mg/L June 1-30.
DISSOLVED SOLIDS: Maximum, 586 mg/L Mar. 8-9; minimum, 149 mg/L June 1-30.

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	STREAMFLOW (CFS) (00060)	SPECONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	HARDNESS (MG/L AS CACO3) (00900)	NESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	SIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	ADSORPTION RATIO (00931)	SIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)
OCT											
01-16	745	550	8.4	210	75	64	11	50	1.5	2.7	130
NOV											
15-17	1060	660	8.0	230	100	75	11	58	1.7	3.3	130
20-26	998	391	7.9	130	61	43	4.5	22	.9	1.5	65
JAN											
07-19	1070	608	8.1	200	76	63	9.4	50	1.6	3.3	120
20-25	949	643	8.0	220	100	71	11	53	1.5	3.2	120
26-31	943	576	8.0	200	90	62	11	39	1.2	2.7	110
FEB											
01-14	974	590	7.8	220	100	70	11	41	1.2	3.0	120
15-21	2000	684	7.7	170	28	57	6.3	85	2.9	4.0	140
22-28	1100	637	7.7	220	98	69	11	51	1.5	3.2	120
MAR											
01-07	1110	653	7.7	230	110	75	11	51	1.5	3.0	120
08-09	1980	883	7.6	190	34	65	7.7	120	3.8	4.1	160
10-21	2370	601	7.7	180	61	59	8.2	59	1.9	3.2	120
22-31	3860	445	7.6	170	50	54	8.6	33	1.1	2.7	120
APR											
01-30	6840	357	7.7	130	32	42	4.9	21	.8	2.4	93
MAY											
01-26	8240	315	7.7	130	52	41	7.4	15	.6	2.0	81
27-28	11800	382	7.7	140	53	44	6.6	27	1.0	2.3	84
29-31	12000	266	7.7	110	36	34	5.9	11	.5	1.8	73
JUN											
01-30	9800	267	7.8	98	33	30	5.5	12	.5	1.6	65
JUL											
01-31	6860	276	7.8	100	31	31	5.9	14	.6	2.0	71
AUG											
01-15	3150	301	7.6	100	28	32	5.7	16	.7	2.0	75
16-23	1860	452	7.5	150	53	50	6.9	33	1.2	2.6	100
24-31	709	512	7.5	180	77	56	8.9	34	1.1	2.5	100
SEP											
01-25	579	495	7.7	160	64	47	9.2	38	1.3	2.4	91
26-30	1190	355	7.5	120	31	35	6.9	27	1.1	2.0	85
WTD. AVG.	--	341	7.7	124	41	39	6.4	21	.8	2.1	83
TIME WTD. AVG.	4220	436	7.8	152	55	48	7.6	32	1.1	2.4	96
TOT. LOAD (TONS)	--	--	--	--	--	131000	21300	68400	--	7070	276000

09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

CHEMICAL ANALYSES, COMPOSITES OF DAILY SAMPLES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED (TONS PER AC-FT) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT											
01-16	160	8.2	.3	12	--	386	.53	776	--	70	10
NOV											
15-17	190	17	.3	11	--	444	.60	1270	--	60	0
20-26	94	5.7	.3	9.6	--	220	.30	593	--	30	0
JAN											
07-19	170	14	.4	9.7	--	392	.53	1130	--	80	0
20-25	180	18	.4	9.4	--	418	.57	1070	--	100	0
26-31	160	16	.3	8.4	--	366	.50	932	--	50	10
FEB											
01-14	170	16	.3	11	--	395	.54	1040	--	60	0
15-21	200	11	.5	9.3	--	457	.62	2470	--	70	20
22-28	190	16	.4	10	--	423	.58	1260	--	70	0
MAR											
01-07	210	14	.3	8.9	--	445	.61	1330	--	90	10
08-09	270	14	.5	8.7	--	586	.80	3130	--	100	20
10-21	160	9.5	.4	9.2	--	381	.52	2440	--	80	20
22-31	120	7.4	.3	9.5	--	308	.42	3210	--	60	10
APR											
01-30	75	5.1	.3	8.6	--	215	.29	3970	--	40	10
MAY											
01-26	61	4.2	.2	6.9	--	186	.25	4140	--	30	30
27-28	100	3.6	.3	6.1	--	240	.33	7650	--	20	20
29-31	51	3.1	.2	6.0	--	157	.21	5090	--	20	30
JUN											
01-30	49	3.5	.3	7.7	--	149	.20	3940	--	30	0
JUL											
01-31	58	3.2	.2	9.5	--	167	.23	3090	--	20	10
AUG											
01-15	67	3.8	.2	11	--	183	.25	1560	--	30	10
16-23	120	7.5	.3	11	--	291	.40	1460	--	40	10
24-31	140	10	.3	10	--	322	.44	616	--	50	10
SEP											
01-25	150	9.2	.3	9.2	--	320	.44	500	--	50	10
26-30	90	6.0	.2	10	--	228	.31	733	--	40	20
WTD. AVG.	76	5.0	.3	8.4	--	208	.28	--	--	35	12
TIME WTD. AVG.	113	7.8	.3	9.2	--	277	.38	--	--	47	10
TOT. LOAD (TONS)	253000	16600	886	28100	--	692000	--	--	--	117	40

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
OCT												
19...	1000	700	560	8.2	15.0	10.0	3.9	10.3	47	200	--	62
NOV												
16...	1730	1040	690	8.2	2.5	6.5	--	9.9	--	230	--	72
DEC												
21...	0900	860	742	8.3	- 6.0	.0	--	12.0	--	210	68	68
JAN												
25...	1000	1010	600	7.8	2.0	1.0	--	12.0	--	250	120	79
FEB												
22...	0930	1220	710	8.0	5.5	1.0	--	12.1	--	210	100	69
MAR												
16...	0800	2500	535	8.2	9.0	5.0	--	10.6	--	190	73	62
APR												
19...	1000	8520	340	8.0	19.0	6.0	--	11.3	--	130	43	37
MAY												
24...	1140	6420	290	8.0	21.0	9.0	--	10.4	--	110	39	34
JUN												
12...	1530	9630	295	8.0	27.0	12.0	--	11.0	--	110	39	35
JUL												
24...	1310	5820	317	8.0	34.5	12.0	--	9.9	--	110	35	34
AUG												
29...	1730	584	518	8.3	30.0	24.0	--	8.1	--	190	88	59
SEP												
25...	1600	1080	395	8.2	28.0	18.0	--	8.3	--	140	58	44

09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
OCT 19...	10	50	1.6	2.5	110	170	6.6	.3	11	361	--	.08
NOV 16...	11	55	1.6	3.3	130	180	13	.3	10	--	--	--
DEC 21...	9.3	80	2.4	4.4	140	230	17	.4	9.8	--	505	--
JAN 25...	12	46	1.3	2.9	130	190	17	.3	10	--	437	--
FEB 22...	10	66	2.0	2.9	110	230	13	.3	9.3	--	468	--
MAR 16...	9.2	43	1.3	2.9	120	140	9.4	.3	9.0	--	349	--
APR 19...	8.6	16	.6	2.2	85	68	4.0	.2	8.9	--	197	--
MAY 24...	6.4	12	.5	1.9	72	55	5.0	.2	7.0	--	165	--
JUN 12...	6.5	12	.5	1.8	75	56	3.5	.2	6.1	--	166	--
JUL 24...	6.2	13	.5	2.1	75	57	4.3	.2	9.9	--	172	--
AUG 29...	9.7	41	1.3	2.3	99	160	12	.3	10	--	356	--
SEP 25...	7.3	31	1.1	2.3	82	120	7.6	.2	10	--	273	--

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT 19...	.09	.01	.34	.43	.040	.01	50	<10	3	3.8	3.5	.7
NOV 16...	.25	--	--	--	--	--	80	--	--	--	--	--
DEC 21...	.52	--	--	--	--	--	70	--	--	--	--	--
JAN 25...	.27	--	--	--	--	--	60	--	--	--	--	--
FEB 22...	.24	--	--	--	--	--	60	--	--	--	--	--
MAR 16...	.28	--	--	--	--	--	50	--	--	--	--	--
APR 19...	.17	--	--	--	--	--	30	--	--	--	--	--
MAY 24...	.12	--	.39	.58	--	--	30	--	--	6.2	3.4	--
JUN 12...	.05	--	--	--	--	--	30	--	--	--	--	--
JUL 24...	.11	--	--	--	--	--	30	--	--	--	--	--
AUG 29...	.38	--	--	--	--	--	60	--	--	--	--	--
SEP 25...	.27	--	--	--	--	--	50	--	--	--	--	--

09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
OCT 19...	1000	1	1	0	80	50	1	<1	0	0
MAY 24...	1140	--	1	--	--	30	--	--	--	--

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
OCT 19...	3	2	9	4	920	<10	5	0	80
MAY 24...	--	--	--	--	--	--	--	--	--

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT 19...	3	.0	.0	1	1	0	0	30	<3
MAY 24...	--	--	--	--	--	--	--	--	--

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---		---	598	665	395	324	281	257	288	541
2	546	---		---	593	653	409	339	288	259	263	487
3	518	---		---	546	728	380	337	296	254	262	500
4	534	---		---	701	567	376	333	286	261	291	509
5	571	---		---	601	686	387	339	291	281	307	482
6	570	---		---	634	587	403	341	258	281	290	490
7	544	---		594	592	683	379	339	260	278	325	474
8	---	---		624	571	884	392	309	263	277	305	504
9	550	---		600	548	882	384	339	265	274	306	526
10	---	---		604	490	623	383	341	294	274	339	474
11	---	---		607	640	590	380	356	289	276	335	477
12	---	---		621	582	583	385	348	247	278	297	---
13	---	---		621	572	562	406	350	231	281	298	496
14	560	---		636	613	561	385	356	249	283	301	510
15	---	629		631	619	507	362	321	253	281	297	477
16	571	670		612	677	496	372	322	253	278	479	494
17	---	683		632	764	579	337	305	242	285	478	480
18	---	---		655	726	589	335	301	247	287	474	488
19	---	---		586	678	676	338	301	284	276	492	489
20	---	---		706	672	688	330	290	275	275	362	504
21	---	---		631	667	688	365	290	297	295	410	441
22	---	---		674	611	493	345	290	287	288	403	458
23	---	---		570	606	485	323	289	273	269	492	473
24	---	---		731	696	481	318	279	275	267	500	497
25	---	---		619	609	479	322	288	282	265	531	511
26	---	---		440	712	480	328	289	255	263	511	351
27	---	---		611	566	465	341	386	259	259	520	381
28	---	---		653	674	423	335	377	246	264	499	358
29	---	---		605	---	418	328	269	247	260	511	343
30	---	---		601	---	406	322	265	261	263	512	359
31	---	---		615	---	399	---	264	---	281	524	---
MEAN	552	661		619	627	581	362	319	268	273	394	468

WTR YR 1979 MEAN 435 MAX 884 MIN 231

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

09365000 SAN JUAN RIVER AT FARMINGTON, NM -- Continued

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---		---	3.0	5.0	8.0	12.0	12.0	14.0	18.0	19.0
2	12.5	---		---	4.0	4.0	8.0	12.0	13.0	15.0	15.0	21.0
3	10.0	---		---	2.0	4.0	9.0	12.0	14.0	15.0	13.0	22.0
4	9.5	---		---	2.0	6.0	10.0	12.0	12.0	16.0	15.0	22.0
5	9.0	---		---	1.0	9.0	12.0	9.0	13.0	16.0	17.0	22.0
6	9.0	---		---	2.0	10.0	15.0	9.0	14.0	15.0	19.0	20.0
7	9.0	---		---	3.0	12.0	13.0	8.0	15.0	15.0	19.0	19.0
8	---	---		1.0	4.0	10.0	12.0	8.0	12.0	15.0	19.0	19.0
9	7.5	---		.0	4.0	8.0	8.0	8.0	10.0	15.0	18.0	20.0
10	---	---		.0	5.0	8.0	6.0	8.0	13.0	13.0	18.0	20.0
11	---	---		3.0	5.0	9.0	7.0	10.0	14.0	15.0	17.0	20.0
12	---	---		3.0	6.0	10.0	8.0	12.0	15.0	15.0	17.0	20.0
13	---	---		1.0	8.0	10.0	9.0	12.0	15.0	15.0	17.0	20.0
14	9.0	---		.0	6.0	10.0	10.0	15.0	14.0	16.0	17.0	18.0
15	---	6.0		4.0	4.0	10.0	12.0	14.0	12.0	16.0	17.0	18.0
16	8.0	6.5		5.0	4.0	7.0	14.0	13.0	12.0	16.0	17.0	20.0
17	---	3.0		5.0	4.0	5.0	14.0	12.0	11.0	13.0	17.0	20.0
18	---	---		5.0	4.0	6.0	14.0	12.0	12.0	14.0	17.0	20.0
19	---	---		3.0	4.0	7.0	13.0	10.0	12.0	15.0	17.0	20.0
20	---	---		3.0	4.0	6.0	12.0	11.0	11.0	16.0	17.0	20.0
21	---	---		2.0	4.0	6.0	12.0	11.0	11.0	17.0	17.0	20.0
22	---	---		3.0	4.0	8.0	12.0	12.0	12.0	17.0	17.0	19.0
23	---	---		1.0	5.0	9.0	12.0	12.0	9.0	17.0	19.0	19.0
24	---	---		1.0	7.0	10.0	11.0	12.0	12.0	17.0	21.0	20.0
25	---	---		2.0	6.0	10.0	12.0	12.0	13.0	18.0	17.0	20.0
26	---	---		.0	6.0	8.0	12.0	10.0	13.0	17.0	21.0	20.0
27	---	---		.0	7.0	7.0	13.0	11.0	13.0	16.0	23.0	20.0
28	---	---		.0	8.0	6.0	13.0	12.0	14.0	16.0	21.0	18.0
29	---	---		.0	---	6.0	13.0	13.0	15.0	17.0	20.0	13.0
30	---	---		.0	---	7.0	13.0	12.0	13.0	18.0	18.0	16.0
31	---	---		.0	---	7.0	---	12.0	---	18.0	19.0	---
MEAN	9.5	5.0		2.0	4.5	7.5	11.0	11.0	12.5	15.5	18.0	19.5

WTR YR 1979 MEAN 11.5 MAX 23.0 MIN .0

NOTE: NUMBER OF MISSING DAYS OF RECORD EXCEEDED 20% OF YEAR

09366500 LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE

LOCATION.--Lat 36°59'51", long 108°11'17", in NW¼SE¼ sec.10, T.32 N., R.13 W., La Plata County, Colorado, Hydrologic Unit 14080105, on right bank at Colorado-New Mexico State Line, 0.2 mi (0.3 km) downstream from Ponds Arroyo, and 4.8 mi (7.7 km) north of La Plata, NM.

DRAINAGE AREA.--331 mi^2 (857 km^2).

PERIOD OF RECORD.--January 1920 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1313: 1934(M), 1936(M).

GAGE.--Water-stage recorder. Datum of gage is 5,975.15 ft (1,821.226 m) National Geodetic Vertical Datum of 1929. See WSP 1713 or 1733 for history of changes prior to Mar. 17, 1934.

REMARKS.--Records good except those for periods of ice effect, which are poor. Diversions above station for irrigation of about 15,000 acres (61 km^2), mostly above station.

COOPERATION.--Records collected and computed by Colorado Division of Water Resources and reviewed by Geological Survey.

AVERAGE DISCHARGE.--59 years, 33.9 ft^3/s (0.960 m^3/s), 24,560 acre-ft/yr (30.3 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,750 ft^3/s (135 m^3/s) Aug. 24, 1927, gage height, 11.36 ft (3.463 m), present datum, from rating curve extended above 750 ft^3/s (21 m^3/s) on basis of slope-area measurement of peak flow; no flow at times in many years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,090 ft^3/s (30.9 m^3/s) Apr. 19, gage height, 4.05 ft (1.234 m); no flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	2.1	3.8	3.0	4.0	13	63	470	290	90	17	7.0
2	.00	2.1	4.4	2.0	4.0	15	66	413	240	136	15	5.8
3	.00	4.4	3.5	3.0	3.0	15	66	350	194	103	13	5.1
4	.00	2.9	3.8	4.0	2.5	14	63	302	204	79	10	4.1
5	.00	2.4	4.5	4.5	3.0	15	63	305	222	67	9.0	3.5
6	.00	2.4	3.5	5.0	3.0	20	92	345	275	68	10	3.2
7	.00	2.4	4.0	4.0	3.5	30	118	455	352	64	14	2.9
8	.00	2.4	4.0	3.5	4.0	52	160	408	328	58	60	2.9
9	.00	2.6	4.0	3.5	4.5	39	236	332	218	56	26	2.6
10	.00	2.6	4.0	3.5	4.5	32	278	278	135	49	19	1.4
11	.00	3.2	4.0	4.0	5.0	36	171	240	123	40	13	1.8
12	.00	9.1	4.0	4.5	5.5	39	126	210	169	40	10	2.4
13	.00	9.6	3.5	4.0	6.5	41	123	186	240	43	15	3.2
14	.00	5.8	3.5	3.0	7.0	43	143	188	260	47	14	3.8
15	.00	4.8	4.0	5.0	7.5	47	224	212	252	51	12	4.1
16	.00	4.4	3.5	6.0	8.0	63	395	244	254	49	16	4.1
17	.00	4.1	3.0	7.0	8.0	58	596	260	188	52	19	3.8
18	.00	3.8	3.5	8.0	8.5	50	677	265	139	59	18	1.0
19	.00	3.8	3.0	7.0	9.0	53	834	300	78	60	16	1.2
20	.00	3.8	2.0	5.0	10	63	582	332	50	32	14	1.2
21	.23	3.8	2.5	5.0	11	78	524	335	48	30	10	1.4
22	1.6	3.5	3.5	6.0	10	61	593	332	56	26	10	2.4
23	.51	3.5	3.5	4.0	10	58	656	425	90	22	11	2.1
24	.80	3.8	4.0	4.0	9.5	58	652	405	94	22	14	2.1
25	1.8	5.8	3.0	6.0	9.0	61	476	370	95	28	13	1.2
26	.80	4.8	3.0	5.5	10	67	479	332	94	29	13	1.4
27	1.2	4.1	3.5	4.0	12	73	431	677	86	25	12	1.2
28	2.4	3.8	3.5	4.0	13	75	479	610	69	22	11	1.4
29	2.4	3.8	4.0	4.0	---	95	562	544	66	23	10	1.6
30	2.4	3.8	4.0	2.0	---	78	509	582	73	23	9.5	1.6
31	2.4	---	4.0	2.5	---	79	---	375	---	19	9.0	---
TOTAL	16.54	119.4	112.0	136.5	195.5	1521	10437	11082	4982	1512	462.5	81.5
MEAN	.53	3.98	3.61	4.40	6.98	49.1	348	357	166	48.8	14.9	2.72
MAX	2.4	9.6	4.5	8.0	13	95	834	677	352	136	60	7.0
MIN	.00	2.1	2.0	2.0	2.5	13	63	186	48	19	9.0	1.0
AC-FT	33	237	222	271	388	3020	20700	21980	9880	3000	917	162

CAL YR 1978 TOTAL 9127.84 MEAN 25.0 MAX 254 MIN .00 AC-FT 18110
WTR YR 1979 TOTAL 30657.94 MEAN 84.0 MAX 834 MIN .00 AC-FT 60810

09367500 LA PLATA RIVER NEAR FARMINGTON, NM

LOCATION.--Lat 36°44'23", long 108°14'51", in NE¼SW¼ sec.7, T.29 N., R.13 W., San Juan County, Hydrologic Unit 14080105, on right bank 1,300 ft (400 m) upstream from bridge on U.S. Highway 550 in Farmington, and 1,800 ft (550 m) upstream from mouth.

DRAINAGE AREA.--583 mi² (1,510 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1938 to current year.

REVISED RECORDS.--WSP 1243: 1944-45. WSP 1313: 1954-44(M), 1946-50(M). WSP 1733: 1951(M).

GAGE.--Water-stage recorder. Altitude of gage is 5,214 ft (1,589 m), from river-profile map. Prior to July 28, 1978 at altitude 1.0 ft (0.305 m) higher.

REMARKS.--Water-discharge records good except those below 10 cfs (0.3 m³/s), which are poor. Diversions for irrigation of about 24,000 acres (97 km²) above station.

AVERAGE DISCHARGE.--41 years, 25.3 ft³/s (0.716 m³/s), 18,330 acre-ft/yr (22.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, that of Sept. 10, 1939, "discharge not determined", gage height, 6.03 ft (1.838 m), site and datum then in use; no flow for long periods in some years.
Major floods occurred Sept. 5 or 6, 1909, and Oct. 5 or 6, 1911.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,410 ft³/s (68.3 m³/s) Jan. 18, gage height, 6.58 ft (2.006 m), from rating curve extended above 850 ft³/s (24 m³/s); no flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.02	.01	3.8	1.4	18	40	98	435	298	4.1	.04	.01
2	.02	.02	4.1	1.0	20	60	85	400	226	15	.03	.01
3	.01	25	2.0	5.6	16	40	77	355	190	22	.06	.01
4	.01	.48	1.8	6.7	16	35	70	332	172	12	.06	.01
5	.01	.08	4.1	7.1	18	30	75	319	178	5.0	.06	.01
6	.00	.03	3.8	7.5	18	50	95	328	223	1.8	.07	.01
7	.00	.04	3.3	7.0	19	117	142	373	294	1.5	.04	.02
8	.00	.05	3.0	6.0	19	200	202	360	314	1.5	.04	.03
9	.00	.05	2.5	5.6	20	189	306	324	238	1.2	14	.03
10	.00	.05	2.2	5.4	40	58	400	270	185	1.2	1.2	.02
11	.02	.05	2.0	7.0	60	58	302	217	175	1.0	.48	.04
12	.02	74	1.8	6.7	100	84	178	172	155	.90	.33	.04
13	.02	11	2.0	6.0	322	99	151	145	172	.65	.28	.02
14	.03	8.6	2.2	7.5	379	101	172	130	193	.51	.16	.03
15	.03	7.2	2.3	9.5	337	108	249	135	205	.45	.26	.04
16	.03	6.8	2.0	15	402	95	386	175	223	.36	.51	.04
17	.04	5.4	2.3	191	237	83	582	208	166	.48	.39	.04
18	.05	4.7	2.5	1260	138	58	552	199	112	.22	.54	.03
19	.06	3.8	3.0	500	50	55	697	208	53	.11	.85	.03
20	.06	3.2	2.8	350	40	93	534	249	25	.28	.57	.04
21	4.6	2.6	2.4	250	30	246	492	260	12	.26	.45	.04
22	.58	1.8	1.8	150	30	176	564	252	7.2	.22	.45	.04
23	.30	1.2	2.0	90	25	142	624	310	8.2	.20	.18	.03
24	7.7	7.7	2.0	50	30	108	672	405	22	.10	.12	.03
25	1.6	15	1.5	40	30	100	600	350	22	.05	.11	.03
26	.08	11	1.6	29	25	105	564	274	18	.05	.12	.03
27	.05	5.9	1.7	18	30	102	528	400	18	.22	.22	.03
28	.04	3.5	1.8	18	30	93	540	588	14	.18	.07	.02
29	.03	1.4	2.0	18	---	132	570	504	5.9	.05	.02	.02
30	.03	2.6	2.0	17	---	108	510	552	4.1	.04	.02	.02
31	.02	---	2.0	17	---	105	---	435	---	.04	.01	---
TOTAL	15.46	203.26	74.3	3103.0	2499	3070	11017	9664	3928.4	71.67	21.74	.80
MEAN	.50	6.78	2.40	100	89.3	99.0	367	312	131	2.31	.70	.027
MAX	7.7	74	4.1	1260	402	246	697	588	314	22	14	.04
MIN	.00	.01	1.5	1.0	16	30	70	130	4.1	.04	.01	.01
AC-FT	31	403	147	6150	4960	6090	21850	19170	7790	142	43	1.6

CAL YR 1978 TOTAL 3792.48 MEAN 10.4 MAX 288 MIN .00 AC-FT 7520
WTR YR 1979 TOTAL 33668.63 MEAN 92.2 MAX 1260 MIN .00 AC-FT 66780

09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1970-1973, 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 25...	1100	1.9	1090	8.2	17.0	12.0	8.8	220	120	72	9.5
NOV 29...	1200	1.8	3120	8.3	4.0	1.0	11.5	970	710	250	84
DEC 21...	1500	11	1900	8.4	4.0	.0	12.4	720	470	190	59
JAN 18...	1515	2070	518	8.1	4.5	.0	11.8	150	20	46	8.6
FEB 20...	1630	145	1750	8.4	7.5	8.5	9.8	650	460	180	49
MAR 29...	1430	160	1550	8.4	9.0	6.0	10.0	620	400	150	60
APR 27...	1100	553	665	8.2	26.0	13.5	8.6	270	120	67	24
MAY 23...	1530	390	517	8.2	34.0	16.0	8.1	230	110	55	23
JUN 21...	1100	13	2000	8.5	29.0	22.0	7.3	720	490	180	65
JUL 27...	1230	.82	4850	8.2	36.0	34.0	5.6	1500	1300	360	150
AUG 27...	1100	.22	4000	8.3	24.5	26.0	6.8	1300	1100	310	130

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT 25...	140	4.1	5.7	118	0	97	390	38	.6	8.0	724
NOV 29...	260	3.6	5.3	320	0	262	1200	76	.4	5.9	2140
DEC 21...	150	2.4	6.1	296	5	253	730	51	.4	8.7	1430
JAN 18...	58	2.1	3.7	158	0	130	160	11	.3	—	350
FEB 20...	160	2.7	6.5	228	4	194	730	47	.5	8.1	1330
MAR 29...	130	2.3	3.8	248	8	217	610	25	.5	7.6	1170
APR 27...	25	.7	2.6	188	0	154	170	7.7	.2	9.2	396
MAY 23...	23	.7	2.1	144	0	118	160	8.4	.3	7.1	342
JUN 21...	170	2.8	2.9	266	8	231	760	52	.4	9.2	1450
JUL 27...	700	7.8	8.6	250	0	205	2000	320	.5	11	4270
AUG 27...	550	6.6	5.9	252	0	207	2000	140	.5	7.8	3410

09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DIS- SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS- PENDED TOTAL (MG/L AS C) (00689)
OCT											
25...	722	.51	.02	8.0	8.5	2.30	100	30	10	4.2	>10
NOV											
29...	2040	.15	.01	.81	.97	.100	130	30	--	5.6	1.1
DEC											
21...	1350	.41	.02	.80	1.2	.210	70	20	--	7.2	--
JAN											
18...	366	.27	.03	1.8	2.1	2.40	60	90	--	13	57
FEB											
20...	1300	.42	.05	2.5	2.9	.030	80	0	--	5.7	7.1
MAR											
29...	1120	.40	.10	7.5	8.0	1.40	50	30	--	7.7	>20
APR											
27...	398	.42	.04	6.8	7.2	.930	40	20	20	5.8	42
MAY											
23...	350	.13	.07	1.9	2.1	.010	10	30	--	6.9	--
JUN											
21...	1380	.15	.06	.29	.50	.020	70	10	--	8.0	.6
JUL											
27...	3650	.03	.05	.67	.75	.130	190	20	50	13	.3
AUG											
27...	3270	.01	.04	.35	.40	.570	200	20	40	13	.2

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV- ERABLE (UG/L AS BA) (01007)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, TOTAL RECOV- ERABLE (UG/L AS BE) (01012)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV- ERABLE (UG/L AS CD) (01027)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, TOTAL RECOV- ERABLE (UG/L AS CR) (01034)
OCT												
25...	1100	10	24	0	1300	0	20	0	100	2	1	120
APR												
27...	1100	10	12	1	1500	40	10	<1	40	0	<1	70
JUL												
27...	1230	0	0	0	0	0	0	0	190	1	1	10
AUG												
27...	1100	0	--	1	--	0	--	0	200	--	0	--

DATE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV- ERABLE (UG/L AS CO) (01037)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV- ERABLE (UG/L AS CU) (01042)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV- ERABLE (UG/L AS PB) (01051)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV- ERABLE (UG/L AS LI) (01132)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, TOTAL RECOV- ERABLE (UG/L AS MN) (01055)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
OCT												
25...	0	90	0	280	5	30	--	0	130	10	4000	10
APR												
27...	0	38	<3	180	4	20	96	1	60	8	2800	20
JUL												
27...	10	2	0	5	3	20	5	0	50	50	80	50
AUG												
27...	10	--	0	--	2	20	--	0	--	50	--	40

09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
OCT 25...	.4	.0	4	3	140	3	5	2	.0	940	20
APR 27...	.4	.1	0	<10	62	1	4	2	.0	370	6
JUL 27...	.0	.1	4	3	3	1	0	0	<1.0	40	40
AUG 27...	--	.0	--	2	--	3	--	0	1.0	--	40

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	BARIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS BA) (01008)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01013)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)
OCT 25...	1100	0	100	0	0	4	0	3
JUL 27...	1230	3	0	0	0	1	0	0

DATE	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01063)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI) (01068)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01148)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
OCT 25...	6	120	.01	4	0	0	6
JUL 27...	0	0	.01	0	0	0	0

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)
OCT 25...	1100	<11	340	10	390	9.4	370
APR 27...	1100	<6.8	110	<3.0	72	<2.7	72

09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
25...	1100	2500	K160000
NOV			
29...	1200	67	450
DEC			
21...	1500	K36	3100
JAN			
18...	1515	K160	4500
FEB			
20...	1630	K120	K26000
MAR			
29...	1430	730	5000
APR			
27...	1100	200	K820
MAY			
23...	1530	2900	1800
JUN			
21...	1100	51	480
JUL			
27...	1230	1200	1400
AUG			
27...	1100	390	500

09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	DEC 21,78		JAN 18,79		FEB 20,79		MAR 29,79	
TIME	1500		1515		1630		1430	
TOTAL CELLS/ML	220		510		620		0	
DIVERSITY: DIVISION	0.0		0.0		1.5		0.0	
.CLASS	0.0		0.0		1.5		0.0	
..ORDER	0.8		0.0		1.5		0.0	
...FAMILY	0.8		0.0		1.5		0.0	
....GENUS	0.8		0.0		1.5		0.0	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	160#	75	--	-	--	-	--	-
..PENNALES								
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....ENTOMONEIS	--	-	--	-	--	-	--	-
....NAVICULA	54#	25	--	-	160#	25	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	--	-
....ANACYSTIS	--	-	510#	100	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	160#	25	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	310#	50	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	APR 27,79		MAY 23,79		JUN 21,79		AUG 27,79	
TIME	1100		1530		1100		1100	
TOTAL CELLS/ML	350		260		0		1100	
DIVERSITY: DIVISION	0.0		0.0		0.0		1.2	
.CLASS	0.0		0.0		0.0		1.2	
..ORDER	0.0		0.0		0.0		1.4	
...FAMILY	0.9		0.0		0.0		1.6	
....GENUS	0.9		0.0		0.0		1.6	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	140	12
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	--	-	--	-	26	2
..PENNALES								
...GOMPHONEMATACEAE								
....GOMPHONEMA	230#	67	--	-	--	-	--	-
...NAVICULACEAE								
....ENTOMONEIS	--	-	--	-	--	-	13	1
....NAVICULA	--	-	--	-	--	-	13	1
...NITZSCHIACEAE								
....NITZSCHIA	120#	33	260#	100	--	-	790#	69
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	13	1
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	--	-	52	4
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....AGMENELLUM	--	-	--	-	--	-	100	9
....ANACYSTIS	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)								
.DINOPHYCEAE								
..PERIDINIALES								
...GLENODINIACEAE								
....GLENODINIUM	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
PERIPHYTON

DATE	TIME	LENGTH OF EXPOSURE (DAYS) (00022)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70958)	SAMPLING METHOD
MAY							
23...	1530	27	.000	.000	.000	.000	Polyethylene strip

09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)
OCT										
25...	1100	1.9	12.0	11000	73	84	99	--	--	--
NOV										
29...	1200	1.8	1.0	681	--	--	--	--	--	--
DEC										
21...	1500	11	.0	776	--	--	--	--	--	--
JAN										
18...	1515	2070	.0	12700	--	--	--	--	--	--
FEB										
20...	1630	145	8.5	6320	--	--	--	--	--	--
MAR										
29...	1430	160	6.0	18400	--	--	--	--	--	--
APR										
13...	1130	154	8.5	5900	--	--	--	--	--	--
27...	1100	553	13.5	9550	17	20	26	53	70	84
MAY										
10...	1045	253	6.0	4360	--	--	--	--	--	--
23...	1530	390	16.0	4470	--	--	--	--	--	--
JUN										
07...	1040	235	16.0	2320	--	--	--	--	--	--
21...	1100	13	22.0	179	--	--	--	--	--	--
JUL										
12...	1030	.97	24.0	151	--	--	--	--	--	--
27...	1230	.82	34.0	288	--	--	--	--	--	--
AUG										
09...	1215	35	25.5	7530	61	73	93	--	--	--
27...	1100	.22	26.0	169	--	--	--	--	--	--
27...	1230	1.1	26.0	--	--	--	--	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)
OCT									
25...	--	--	99	100	--	--	5	6	11
NOV									
29...	--	--	--	--	--	--	--	--	--
DEC									
21...	--	--	--	--	--	--	--	--	--
JAN									
18...	--	--	--	--	--	--	--	--	--
FEB									
20...	--	--	--	--	--	--	--	--	--
MAR									
29...	--	--	--	--	--	--	--	--	--
APR									
13...	--	--	--	--	--	--	--	--	--
27...	97	100	--	--	--	--	--	--	--
MAY									
10...	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--
JUN									
07...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
JUL									
12...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	1	3	25
AUG									
09...	--	--	96	97	99	100	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	1	2	16

09367500 LA PLATA RIVER NEAR FARMINGTON, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
OCT									
25...	29	--	--	36	40	45	53	70	100
NOV									
29...	--	--	--	--	--	--	--	--	--
DEC									
21...	--	--	--	--	--	--	--	--	--
JAN									
18...	--	--	--	--	--	--	--	--	--
FEB									
20...	--	--	--	--	--	--	--	--	--
MAR									
29...	--	--	--	--	--	--	--	--	--
APR									
13...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
MAY									
10...	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--
JUN									
07...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
JUL									
12...	--	--	--	--	--	--	--	--	--
27...	86	99	100	--	--	--	--	--	--
AUG									
09...	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--
27...	76	98	100	--	--	--	--	--	--

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM

LOCATION.--Lat 36°44'25", long 108°24'09", in NW¼SE¼ sec.10, T.29 N., R.15 W., San Juan County, Hydrologic Unit 14080105, on right bank 300 ft (91.4 m) downstream from Four Corners Power Plant highway bridge, 0.4 mi (0.64 km) west of Fruitland, 10 mi (16.1 km) downstream from La Plata River, 14.0 mi (22.5 km) upstream from Chaco River, and at mile 239 (385 km).

DRAINAGE AREA.—8,010 mi^2 (20,750 km^2), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,150 ft (1,570 m), from topographic map.

REMARKS.--Water-discharge records fair. Diversion for irrigation of about 95,000 acres (384 km^2) above station.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,200 ft^3/s (402 m^3/s) May 28, 1979, gage height, 8.65 ft (2.637 m); minimum, 320 ft^3/s (9.06 m^3/s) Aug. 14, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.—A major flood occurred in October 1911 at this location.

EXTREMES FOR CURRENT YEAR.—Maximum discharge, 14,200 ft^3/s (402 m^3/s) May 28, 1979, gage height, 8.65 ft (2.637 m); minimum, 362 ft^3/s (10.3 m^3/s) Oct. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	920	875	821	978	980	1250	5020	7350	11700	8960	4880	660
2	905	920	850	571	1010	1250	4690	7080	10400	9120	4740	688
3	875	2660	865	623	970	1250	4620	7020	9900	9110	4490	695
4	738	1940	757	769	930	1220	4610	6400	9500	8850	4220	688
5	600	1270	771	822	950	1200	4660	6180	10500	8300	4190	681
6	625	1080	972	910	910	1300	4980	6620	12600	8000	4130	647
7	562	1030	802	960	905	1540	5640	7800	13300	7950	3830	602
8	550	950	743	900	880	2400	6270	8300	10900	8000	3400	543
9	550	965	710	780	890	2640	6690	8500	12400	8220	3150	524
10	562	890	669	850	960	1600	7170	7790	10400	8100	2810	512
11	481	860	786	860	960	1650	7160	6950	9370	7850	2610	494
12	446	1250	848	880	1100	1840	6240	6600	9510	7680	2530	488
13	424	1350	1110	900	1330	2020	6430	6500	10200	7520	2670	500
14	382	1220	1170	850	1730	2170	7220	6150	10800	7350	2480	524
15	393	1120	1130	870	2800	2250	7950	6650	11000	7250	2480	556
16	414	1060	1110	900	2850	2500	8960	7880	10900	7050	2600	588
17	502	990	1260	1500	2800	3100	10400	8450	11000	6880	2290	576
18	492	950	2060	2850	2030	2960	10700	8510	10100	6950	2200	556
19	531	920	1900	2550	1570	2930	10800	9050	8890	6720	1940	550
20	650	890	1860	1550	1480	3050	9920	10200	7500	6470	1870	562
21	800	880	1230	1150	1380	3500	9190	10600	7120	6330	1760	615
22	1160	880	1060	1040	1280	3370	9470	10600	7650	6240	1510	602
23	1100	885	1010	920	1210	3430	9490	11800	8320	6180	1240	608
24	1180	960	1030	1100	1190	3240	9740	11700	8660	6000	965	608
25	1520	1400	1010	1080	1160	3390	9120	10800	8720	5750	845	790
26	1200	1100	903	1040	1200	3850	8570	10500	8750	5590	782	1080
27	1070	970	901	960	1240	4360	8570	11500	8920	5360	782	1120
28	1020	920	959	940	1250	4530	8070	13700	9090	5240	658	1150
29	1010	915	1020	970	---	5060	8120	13700	9290	5240	591	1150
30	920	814	1120	980	---	5070	8040	13700	9090	5220	608	1150
31	890	---	1120	930	---	5040	---	13000	---	5080	647	---
TOTAL	23472	32914	32557	32983	37945	84960	228510	281580	296480	218560	73898	20507
MEAN	757	1097	1050	1064	1355	2741	7617	9083	9883	7050	2384	684
MAX	1520	2660	2060	2850	2850	5070	10800	13700	13300	9120	4880	1150
MIN	382	814	669	571	880	1200	4610	6150	7120	5080	591	488
AC-FT	46560	65280	64580	65420	75260	168500	453200	558500	588100	433500	146600	40680

CAL YR 1978 TOTAL 479515 MEAN 1314 MAX 4630 MIN 270 AC-FT 951100
WTR YR 1979 TOTAL 1364366 MEAN 3738 MAX 13700 MIN 382 AC-FT 2706000

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
OCT 19...	1100	514	700	8.3	14.0	13.0	9.4	230	92	72	12
NOV 29...	1130	842	675	8.3	2.0	3.0	11.0	240	100	76	12
DEC 19...	1330	1460	780	8.2	2.5	2.0	10.8	190	55	62	8.0
JAN 24...	1430	995	650	8.0	1.0	.0	11.7	240	0	77	11
FEB 22...	1530	1270	718	8.4	6.5	4.0	10.8	--	--	71	--
MAR 27...	1545	4410	465	8.3	17.0	6.5	9.4	170	44	52	9.6
APR 25...	1530	9020	345	8.0	18.0	10.0	9.6	140	38	41	8.7
MAY 29...	1600	13400	280	8.0	27.0	13.0	8.5	110	23	35	6.2
JUN 19...	1345	8500	275	8.1	25.0	12.0	8.9	110	35	34	7.0
JUL 25...	1500	5700	290	8.3	36.0	15.0	8.5	120	38	36	7.1
AUG 23...	1700	1200	499	8.2	29.0	20.0	7.6	170	60	55	8.8
SEP 19...	1100	543	540	8.5	26.0	17.0	9.6	180	65	57	9.3

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
OCT 19...	56	1.6	3.2	168	0	138	180	18	.3	9.3	448
NOV 29...	51	1.4	3.4	170	0	139	180	15	.3	11	451
DEC 19...	100	3.2	4.0	165	0	135	260	15	.3	8.3	527
JAN 24...	51	1.4	2.7	164	0	134	180	13	.3	--	421
FEB 22...	69	--	3.0	184	2	154	220	18	.4	9.1	475
MAR 27...	33	1.1	2.8	154	0	126	100	7.6	.3	9.2	297
APR 25...	17	.6	2.1	124	0	102	70	4.3	.2	9.3	211
MAY 29...	12	.5	2.0	106	0	87	53	3.3	.2	6.6	179
JUN 19...	13	.5	1.7	96	0	79	57	3.7	.2	6.2	176
JUL 25...	16	.6	1.3	100	0	82	69	4.4	.2	11	193
AUG 23...	31	1.0	2.5	134	0	110	140	13	.2	11	317
SEP 19...	45	1.5	2.7	128	6	120	160	8.9	.3	8.5	354

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT 19...	434	.14	.02	.47	.63	.050	70	<10	40	4.5	.6
NOV 29...	433	.25	.05	.54	.84	.130	80	10	--	3.0	.7
DEC 19...	539	.54	.03	2.2	2.7	.630	80	20	--	7.8	11
JAN 24...	499	.25	.09	.40	.74	.180	50	20	--	3.0	1.7
FEB 22...	--	.29	.08	14	14	.070	80	90	--	3.3	13
MAR 27...	290	.28	.06	2.8	3.2	.760	50	20	--	5.9	--
APR 25...	214	.20	.03	.71	.94	.280	30	10	10	4.3	5.9
MAY 29...	171	.16	.05	.95	1.2	.030	50	50	--	5.3	--
JUN 19...	170	.09	.03	.08	.20	.070	90	20	--	3.7	.4
JUL 25...	195	.10	.01	.31	.42	.130	20	320	90	4.2	.3
AUG 23...	328	.15	.09	1.7	2.0	.020	50	10	20	3.5	.6
SEP 19...	361	.04	.02	.54	.60	.080	50	50	--	6.2	.8

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) (01012)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
OCT 19...	1100	10	1	1	80	80	<1	<1	70	<1	<1	0
APR 25...	1530	30	3	0	600	60	0	<1	30	1	<1	20
JUL 25...	1500	180	1	0	200	100	0	<1	20	1	1	10
AUG 23...	1700	0	--	1	--	80	--	<1	50	--	<1	--

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT 19...	0	<1	<1	6	4	<10	4	0	30	30	70	40
APR 25...	0	6	<3	36	2	10	83	0	20	10	920	10
JUL 25...	0	3	<3	31	5	320	20	1	10	20	230	90
AUG 23...	0	--	<3	--	4	10	--	0	--	20	--	20

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT 19...	.0	.0	1	1	6	1	1	0	.0	40	20
APR 25...	.5	.1	0	<10	14	0	1	1	.5	270	4
JUL 25...	.1	.1	0	<10	5	3	1	1	1.0	70	50
AUG 23...	--	.0	--	<10	--	3	--	0	1.0	--	<3

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	BARIUM, RECOV. FM BOTTOM MATERIAL (UG/G AS BA) (01008)	BERYLLIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01013)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)
OCT 19...	1100	4	120	0	0	2	3	9
APR 25...	1530	2	32	0	0	1	0	1

DATE	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01063)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI) (01068)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
OCT 19...	20	240	.01	4	3	0	60
APR 25...	0	30	.01	0	0	0	27

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)
OCT 19...	1100	9.5	3.4	2.4	2.1	2.2	2.0
APR 25...	1530	<3.5	24	2.1	15	2.0	14

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT 19...	1100	90	230
NOV 29...	1130	K7	K56
DEC 19...	1330	350	K13000
JAN 24...	1430	K0	40
FEB 22...	1530	K21	K4900
MAR 27...	1545	K93	K350
APR 25...	1530	480	140
MAY 29...	1600	250	510
JUN 19...	1345	K170	110
JUL 25...	1500	K30	K60
AUG 23...	1700	200	950

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 19,78		DEC 19,78		JAN 24,79		FEB 22,79		MAR 27,79	
TIME	1100		1330		1430		1530		1545	
TOTAL CELLS/ML	900		470		250		260		1400	
DIVERSITY: DIVISION	1.2		0.0		1.3		0.0		1.3	
.CLASS	1.2		0.0		1.3		0.0		1.3	
..ORDER	1.4		0.0		1.3		0.0		1.3	
...FAMILY	2.4		0.9		2.3		0.0		1.8	
....GENUS	2.5		0.9		2.4		0.0		1.8	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	5	1	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	21	2	--	-	65#	26	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....STAURASTRUM	--	-	--	-	--	-	--	-	140	10
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	27	3	--	-	--	-	--	-	--	-
....MELOSIRA	--	-	--	-	--	-	--	-	--	-
....STEPHANODISCUS	5	1	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	11	1	--	-	--	-	--	-	--	-
....COCCONEIS	16	2	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	11	1	--	-	--	-	--	-	140	10
...CYMBELLACEAE										
....CYMBELLA	11	1	--	-	5	2	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	11	4	--	-	140	10
...FRAGILARIACEAE										
....ASTERIONELLA	--	-	--	-	--	-	--	-	--	-
....FRAGILARIA	--	-	--	-	--	-	--	-	--	-
....SYNEDRA	--	-	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE										
....GOMPHONEMA	5	1	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....GYROSIGMA	--	-	--	-	3	1	--	-	--	-
....NAVICULA	210#	23	160#	33	97#	38	260#	100	140	10
...NITZSCHIACEAE										
....NITZSCHIA	210#	24	--	-	30	12	--	-	--	-
...SURIRELLACEAE										
....SURIRELLA	43	5	310#	67	11	4	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	860#	60
....OSCILLATORIA	320#	36	--	-	32	13	--	-	--	-
....SPIRULINA	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	5	1	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	APR 25,79		MAY 29,79		JUL 25,79		AUG 23,79		SEP 19,79	
TIME	1530		1600		1500		1700		1100	
TOTAL CELLS/ML	1600		51		1200		950		1900	
DIVERSITY: DIVISION	1.1		0.0		0.6		1.0		0.9	
.CLASS	1.1		0.0		0.6		1.0		0.9	
..ORDER	1.1		0.0		0.6		1.1		1.2	
...FAMILY	2.4		0.0		0.8		1.3		2.7	
....GENUS	2.6		0.0		0.8		1.3		2.8	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....ANKISTRODESMUS	--	-	--	-	--	-	--	-	--	-
....DICTYOSPHAERIUM	56	3	--	-	--	-	--	-	--	-
...SCENEDESMACEAE										
....CRUCIGENIA	--	-	--	-	--	-	--	-	--	-
....SCENEDESMUS	--	-	--	-	--	-	--	-	55	3
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	14	1	--	-	13	1	13	1	96	5
..ZYGNEMATALES										
...DESMIDIACEAE										
....STAURASTRUM	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	--	-	--	-	--	-	--	-
....MELOSIRA	--	-	--	-	--	-	13	1	69	4
....STEPHANODISCUS	--	-	--	-	--	-	--	-	--	-
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	14	1	--	-	13	1	13	1	27	1
....COCCONEIS	--	-	--	-	--	-	--	-	96	5
....RHOICOSPHENIA	--	-	--	-	--	-	--	-	14	1
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	--	-	27	1
...DIATOMACEAE										
....DIATOMA	390#	24	--	-	--	-	--	-	14	1
...FRAGILARIACEAE										
....ASTERIONELLA	14	1	--	-	--	-	--	-	--	-
....FRAGILARIA	130	8	--	-	--	-	--	-	--	-
....SYNEDRA	42	3	--	-	26	2	--	-	41	2
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	13	1	--	-	41	2
...NAVICULACEAE										
....GYROSIGMA	--	-	--	-	--	-	--	-	--	-
....NAVICULA	70	4	51#	100	13	1	39	4	440#	23
...NITZSCHIACEAE										
....NITZSCHIA	390#	24	--	-	65	5	230#	24	770#	40
...SURIRELLACEAE										
....SURIRELLA	14	1	--	-	--	-	--	-	27	1
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..HORMOGONALES										
...OSCILLATORIACEAE										
....LYNGBYA	--	-	--	-	--	-	--	-	--	-
....OSCILLATORIA	460#	29	--	-	1000#	88	650#	68	210	11
....SPIRULINA	14	1	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....EUGLENA	--	-	--	-	--	-	--	-	14	1

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PERIPHYTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS) (00022)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	SAMPLING METHOD
MAY								
29...	1600	35	.000	.000	.000	.000	--	Polyethelene strip
SEP								
19...	1100	27	13.1	12.3	12.9	1.56	62.0	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)
OCT											
05...	1045	646	13.0	145	--	--	--	--	--	--	--
19...	1100	514	13.0	91	22	26	--	29	--	--	--
NOV											
29...	1130	842	3.0	1700	--	--	--	--	--	--	--
DEC											
19...	1330	1460	2.0	5400	--	--	--	--	--	--	--
JAN											
24...	1430	995	.0	1230	--	--	--	--	--	--	--
FEB											
22...	1530	1270	4.0	7260	--	--	--	--	--	--	--
MAR											
27...	1545	4410	6.5	7900	--	--	--	--	--	--	--
APR											
11...	1515	6980	6.0	3880	--	--	--	--	--	--	--
25...	1530	9020	10.0	2140	11	14	--	18	--	37	50
MAY											
29...	1600	13400	13.0	1450	--	--	--	--	--	--	--
JUN											
06...	1600	12600	14.0	1240	--	--	--	--	--	--	--
19...	1345	8500	12.0	788	--	--	--	--	--	--	--
JUL											
10...	1420	7950	14.0	436	--	--	--	--	--	--	--
25...	1400	5700	15.0	288	11	12	14	16	21	33	46
30...	1530	5280	16.0	239	--	--	--	--	--	--	--
AUG											
23...	1700	1200	20.0	132	27	38	46	55	65	73	--
SEP											
11...	1115	500	19.0	38	--	--	--	--	--	--	--
19...	1100	543	17.0	56	--	--	--	--	--	--	--

09367540 SAN JUAN RIVER NEAR FRUITLAND, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)	SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM (70336)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)
OCT											
05...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	60	88	99	100	--	--	17	53
NOV											
29...	--	--	--	--	--	--	--	--	--	--	--
DEC											
19...	--	--	--	--	--	--	--	--	--	--	--
JAN											
24...	--	--	--	--	--	--	--	--	--	--	--
FEB											
22...	--	--	--	--	--	--	--	--	--	--	--
MAR											
27...	--	--	--	--	--	--	--	--	--	--	--
APR											
11...	--	--	--	--	--	--	--	--	--	--	--
25...	76	96	100	--	--	--	--	--	--	1	1
MAY											
29...	--	--	--	--	--	--	--	--	--	--	--
JUN											
06...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
JUL											
10...	--	--	--	--	--	--	--	--	--	--	--
25...	66	99	100	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--	--
AUG											
23...	--	--	--	--	85	89	92	97	100	--	--
SEP											
11...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--

DATE	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)	BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM (80173)
OCT										
05...	--	--	--	--	--	--	--	--	--	--
19...	67	81	99	100	--	--	--	--	--	--
NOV										
29...	--	--	--	--	--	--	--	--	--	--
DEC										
19...	--	--	--	--	--	--	--	--	--	--
JAN										
24...	--	--	--	--	--	--	--	--	--	--
FEB										
22...	--	--	--	--	--	--	--	--	--	--
MAR										
27...	--	--	--	--	--	--	--	--	--	--
APR										
11...	--	--	--	--	--	--	--	--	--	--
25...	5	45	--	--	78	90	92	95	95	100
MAY										
29...	--	--	--	--	--	--	--	--	--	--
JUN										
06...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--
JUL										
10...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--	--	--	--
AUG										
23...	--	--	--	--	--	--	--	--	--	--
SEP										
11...	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--

09367555 SHUMWAY ARROYO NEAR FRUITLAND, NM

LOCATION.--Lat 36°48'23", long 108°23'42", in NE¼NE¼ sec. 22, T.30 N., R.15 W., San Juan County, Hydrologic Unit 14080102, on right bank 1.7 mi (2.7 km) downstream from Narrows Wash, 2.0 mi (3.2 km) northeast of San Juan Power Plant, 4.6 mi (7.4 km) north of Fruitland, and at mile 8.5 (13.7 km).

DRAINAGE AREA.--62.8 mi² (163 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,240 ft (1,597 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft³/s (142 m³/s) May 20, 1978, gage height, 13.00 ft (3.962 m), from floodmarks, from rating curve extended above 4.0 ft³/s (0.11 m³/s) on basis of slope-area measurements of peak flow at gage heights, 9.98 ft (3.042 m) and 13.00 ft (3.962 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 30 ft³/s (0.85 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 21	2100	93	2.63	2.43	0.741
Nov. 3	0730	80	2.27	2.30	0.701
Nov. 12	1030	122	3.46	2.65	0.808
Dec. 3	1000	305	8.64	3.60	1.097
Jan. 18	1650	*380	10.76	3.90	1.189
Feb. 13	Unknown	Unknown		Unknown	
Sept. 14	2345	54	1.53	2.04	0.622

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.14	1.1	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	13	22	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.88	1.1	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.23	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.05	.09	1.0	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	1.3	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.94	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.90	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.90	8.3	.00	.00	.00	.00	.00	.00	.00
11	.00	.03	.00	.94	18	.00	.00	.00	.00	.00	.00	.00
12	.00	17	.00	.94	68	.00	.00	.00	.00	.00	.00	.00
13	.00	1.9	.00	.94	131	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.94	63	.00	.00	.00	.00	.00	.00	.91
15	.00	.00	.00	1.3	34	.00	.00	.00	.00	.00	.00	3.7
16	.00	.00	11	7.4	16	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	94	54	5.7	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	32	125	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	9.5	33	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	7.3	5.4	.00	.00	.00	.00	.00	.00	.00	.00
21	5.5	.00	6.7	.29	.00	.00	.00	.00	.00	.00	.00	.00
22	2.0	.00	2.3	.12	.00	.00	.00	.00	.00	.00	.00	.00
23	.65	.00	1.0	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	3.3	.14	.50	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	1.2	5.6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.02	2.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	1.4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.65	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.25	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.11	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	12.67	43.48	188.85	235.31	344.00	.00	.00	.00	.00	.00	.00	4.61
MEAN	.41	1.45	6.09	7.59	12.3	.000	.000	.000	.000	.000	.000	.15
MAX	5.5	17	94	125	131	.00	.00	.00	.00	.00	.00	3.7
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	25	86	375	467	682	.00	.00	.00	.00	.00	.00	9.1

CAL YR 1978 TOTAL 509.02 MEAN 1.39 MAX 254 MIN .00 AC-FT 1010
WTR YR 1979 TOTAL 828.92 MEAN 2.27 MAX 131 MIN .00 AC-FT 1640

09367555 SHUMWAY ARROYO NEAR FRUITLAND, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976, 1978 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
OCT								
24...	1320	E.01	480	7.5	8.5	20	10	29

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)
OCT									
24...	1320	3	1	100	0	0	7	20	1

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT								
24...	1	10	.1	.0	2	0	20	29

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
OCT						
24...	1320	E.01	8.5	1250	98	29

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM

LOCATION.--Lat 36°46'24", long 108°26'26", in SE¼NW¼ sec.32, T.30 N., R.15. W, San Juan County, Hydrologic Unit 14080105, on right bank 0.6 mi (1.0 km) downstream from Westwater Arroyo, 0.7 mi (1.1 km) upstream from highway to San Juan Power Plant, 14 mi (22 km) west of Farmington, and at mile 4.5 (7.2 km).

DRAINAGE AREA.--73.8 mi² (191 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1974 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,130 ft (1,564 m), from topographic map. Prior to May 20, 1978, at datum, 10.0 ft (3.048 m) higher.

REMARKS.--Water-discharge records fair except those for May, which are poor. Base flow is mostly waste water from San Juan Power Plant.

AVERAGE DISCHARGE.--5 years, 1.75 ft³/s (0.050 m³/s), 1,270 acre-ft/yr (1.57 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,420 ft³/s (182 m³/s) May 20, 1978, gage height, 18.94 ft (5.773 m), from floodmark, from rating curve extended above 4.0 ft³/s (0.11 m³/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft³/s (0.85 m³/s) and maximum(*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 3	0930	126	3.57	9.36	2.853	Jan. 17	1800	270	7.65	8.45	2.576
Nov. 12	1330	31	0.88	7.70	2.347	Feb. 13	1800	*579	16.40	9.55	2.911
Dec. 17	0900	113	3.20	7.98	2.432	Sept. 14	2345	290	8.21	6.50	1.981

Minimum daily, 0.31 ft³/s (0.009 m³/s) June 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.8	3.5	3.2	3.0	2.0	1.4	1.6	1.1	1.0	.70	2.2	4.8
2	1.9	4.1	2.7	2.5	2.1	1.3	1.5	2.6	.87	1.6	2.7	5.1
3	2.8	9.0	20	3.1	2.4	3.0	1.3	2.6	.75	2.0	3.7	2.5
4	2.0	1.3	3.3	2.2	2.5	2.0	2.1	2.0	.64	2.0	3.0	1.5
5	2.6	1.3	3.1	2.3	3.0	1.2	1.0	1.7	.42	1.0	2.2	3.2
6	2.2	1.4	3.1	2.7	3.1	2.5	1.0	1.3	.37	1.0	2.0	3.2
7	2.0	1.8	3.0	2.0	2.2	2.0	1.0	1.3	.70	1.2	2.0	3.0
8	2.2	2.4	2.7	1.7	2.5	2.2	1.0	1.4	.70	1.6	2.2	2.5
9	2.2	2.0	2.0	1.9	3.0	1.8	.90	1.1	.53	1.6	1.8	2.7
10	2.0	1.8	1.9	2.2	9.1	1.2	.90	1.0	.70	1.6	4.2	2.7
11	3.0	2.2	2.2	1.8	20	1.2	.70	.85	1.2	1.8	3.0	2.7
12	4.5	8.0	1.9	2.1	74	1.1	.70	.75	1.4	1.9	2.2	2.5
13	3.7	4.9	1.8	2.4	142	1.0	1.0	.75	1.6	1.8	4.2	2.5
14	2.7	3.2	1.5	2.0	68	.90	.90	1.0	1.9	2.7	2.5	4.8
15	2.9	3.2	1.6	1.8	37	.90	.90	1.0	2.2	2.2	4.2	27
16	2.9	3.0	1.8	8.0	17	1.1	.90	.65	1.4	4.8	4.8	5.8
17	2.6	2.8	32	82	6.2	1.6	.50	.65	1.1	2.2	3.9	3.0
18	2.8	2.6	2.5	82	1.8	1.6	.50	.65	.64	1.9	4.4	2.9
19	2.6	2.5	2.0	40	1.0	2.1	.90	.65	1.1	1.9	4.4	2.5
20	1.5	2.6	1.8	12	2.4	1.7	1.1	.59	.87	2.5	3.0	2.7
21	3.6	3.1	1.5	5.2	2.1	2.1	.85	.64	1.6	2.0	2.2	3.0
22	4.0	3.0	1.4	2.3	2.3	1.9	.90	.68	1.6	2.5	2.0	2.7
23	1.9	2.7	1.2	2.6	1.3	1.8	1.2	.70	2.2	1.9	2.5	3.0
24	3.1	2.9	1.0	3.0	1.7	1.9	.95	1.4	2.0	2.5	3.0	2.7
25	2.8	5.7	1.0	2.6	1.1	1.9	1.1	2.5	2.0	3.7	4.2	2.5
26	2.2	3.8	1.9	2.0	1.8	2.1	1.0	3.0	2.0	2.5	2.2	3.0
27	2.3	3.3	2.0	1.8	1.7	2.1	1.0	2.0	1.5	1.9	3.9	3.5
28	1.7	3.2	1.9	2.1	2.0	2.0	1.0	2.1	1.6	1.5	3.7	4.0
29	1.6	3.8	1.0	1.8	---	1.5	1.2	1.9	1.0	1.4	3.2	4.2
30	1.5	2.5	1.5	1.9	---	1.4	1.3	2.0	.31	1.5	3.4	4.1
31	2.8	---	1.0	2.1	---	1.7	---	2.5	---	1.5	6.2	---
TOTAL	78.4	97.6	109.5	285.1	415.3	52.20	30.90	43.06	35.90	60.90	99.1	120.3
MEAN	2.53	3.25	3.53	9.20	14.8	1.68	1.03	1.39	1.20	1.96	3.20	4.01
MAX	4.5	9.0	32	82	142	3.0	2.1	3.0	2.2	4.8	6.2	27
MIN	1.5	1.3	1.0	1.7	1.0	.90	.50	.59	.31	.70	1.8	1.5
AC-FT	156	194	217	565	824	104	61	85	71	121	197	239

CAL YR 1978 TOTAL 1280.96 MEAN 3.51 MAX 320 MIN .00 AC-FT 2540
WTR YR 1979 TOTAL 1428.26 MEAN 3.91 MAX 142 MIN .31 AC-FT 2830

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1974 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 26 indicates by automatic pump, 29 indicates dip or grab sample, and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)
OCT										
24...	1625	2.3	5000	5.9	--	12.0	--	--	--	--
NOV										
03...	0910	E10	1200	7.7	--	--	--	--	--	--
03...	0911	E10	1325	7.1	--	--	--	--	--	--
03...	0912	E10	1250	7.1	--	--	--	--	--	--
03...	0915	E30	1650	7.2	--	--	--	--	--	--
03...	0917	E30	1150	7.2	--	--	--	--	--	--
03...	0921	E60	875	7.3	--	--	--	--	--	--
03...	0922	E60	875	7.1	--	--	--	--	--	--
14...	1140	E3.1	6000	3.4	--	8.0	--	--	--	--
DEC										
17...	0400	E10	750	7.6	--	--	--	--	--	--
17...	0401	E10	2500	7.3	--	--	--	--	--	--
17...	0402	E10	1000	7.6	--	--	--	--	--	--
21...	1130	E5.0	6050	4.3	.0	3.0	--	.0	--	--
JAN										
03...	1145	1.0	11000	3.1	--	.0	--	--	--	--
22...	1600	2.3	11000	8.0	--	3.0	--	--	--	--
FEB										
11...	1901	E10	500	7.6	--	--	--	--	--	--
15...	1045	13	2250	7.5	--	2.0	--	--	--	--
MAR										
15...	0830	E1.5	10400	3.7	6.5	9.0	14	4.4	81	840
28...	0930	2.0	7500	7.1	--	11.0	--	--	--	--
MAY										
09...	0800	1.2	4600	7.7	--	7.0	--	--	--	--
24...	0830	E3.0	10900	6.5	17.5	17.0	35	.0	130	930
25...	0935	2.5	9400	6.1	--	--	--	--	--	--
31...	1445	2.5	8150	5.6	--	22.5	--	--	--	--
JUL										
11...	1230	2.0	7600	--	32.0	--	--	--	--	--
AUG										
01...	0745	2.3	11900	8.7	23.0	18.5	--	--	--	--
20...	1535	2.6	6325	2.7	--	--	--	--	--	--
20...	1540	E2.6	6800	2.6	--	--	--	--	--	--
SEP										
27...	0900	E5.0	7500	4.3	22.0	17.0	36	7.5	66	990

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT										
24...	--	--	--	--	--	--	--	--	--	--
NOV										
03...	--	--	--	--	--	--	1056*	866	--	--
03...	--	--	--	--	--	--	1028*	843	--	--
03...	--	--	--	--	--	--	1028*	843	--	--
03...	--	--	--	--	--	--	1740*	1430	--	--
03...	--	--	--	--	--	--	1356*	1110	--	--
03...	--	--	--	--	--	--	920*	755	--	--
03...	--	--	--	--	--	--	816*	669	--	--
14...	--	--	--	--	--	--	0	0	--	--
DEC										
17...	--	--	--	--	--	--	250*	205	--	--
17...	--	--	--	--	--	--	192*	157	--	--
17...	--	--	--	--	--	--	400*	328	--	--
21...	--	--	--	--	--	10	--	--	--	--
JAN										
03...	--	--	--	--	--	--	0	0	--	--
22...	--	--	--	--	--	--	426*	349	--	--
FEB										
11...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	18	15	--	--
MAR										
15...	840	140	120	2200	33	20	0	0	5100	340
28...	--	--	--	--	--	--	56	46	--	--
MAY										
09...	--	--	--	--	--	--	164	135	--	--
24...	930	140	140	2600	37	19	--	0	5400	490
25...	--	--	--	--	--	--	4	3	--	--
31...	--	--	--	--	--	--	16	13	--	--
JUL										
11...	--	--	--	--	--	--	--	--	--	--
AUG										
01...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	0	0	--	--
20...	--	--	--	--	--	--	0	0	--	--
SEP										
27...	990	230	100	1300	18	17	0	0	3000	350

* Determined on well mixed water-suspended sediment samples.

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)
OCT										
24...	--	--	--	--	--	--	--	--	--	--
NOV										
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
DEC										
17...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
JAN										
03...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
FEB										
11...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
MAR										
15...	24	38	9500	8020	5.3	4.8	.93	--	3.8	10
28...	--	--	--	--	--	--	--	--	--	--
MAY										
09...	--	--	--	--	--	--	--	--	--	--
24...	18	26	9600	8840	.00	.11	1.4	--	.00	.42
25...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
JUL										
11...	--	--	--	--	--	--	--	--	--	--
AUG										
01...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
SEP										
27...	51	57	6750	5130	3.1	3.0	--	.79	--	--

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
OCT									
24...	--	--	--	60	640	18	6.1	--	--
NOV									
03...	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	--	--	--
DEC									
17...	--	--	--	--	--	--	--	--	40
17...	--	--	--	--	--	--	--	--	40
17...	--	--	--	--	--	--	--	--	40
21...	--	--	--	--	--	--	--	--	--
JAN									
03...	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--
FEB									
11...	--	--	--	--	--	--	--	--	40
15...	--	--	590	50	0	--	--	--	--
MAR									
15...	.330	.27	6200	3800	1500	--	14	1.5	--
28...	--	--	1900	30	640	--	--	--	--
MAY									
09...	--	--	600	10	210	--	--	--	--
24...	.090	.19	6500	150	840	--	14	5.6	--
25...	--	--	--	--	--	--	--	--	--
31...	--	--	300	110	690	--	--	--	--
JUL									
11...	--	--	9300	20	90	--	--	--	--
AUG									
01...	--	--	9500	60	240	--	--	--	--
20...	--	--	4000	7200	530	--	--	--	--
20...	--	--	--	--	--	--	--	--	26
SEP									
27...	.180	--	8100	5000	960	--	9.1	1.1	--

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
OCT										
24...	1625	9	3	--	0	--	--	--	1	--
NOV										
03...	0910	73	--	2500	--	540	--	--	--	--
03...	0911	83	--	2300	--	520	--	--	--	--
03...	0912	71	--	2700	--	470	--	--	--	--
03...	0915	160	--	2500	--	500	--	--	--	--
03...	0917	120	--	5500	--	460	--	--	--	--
03...	0921	93	--	5500	--	430	--	--	--	--
03...	0922	62	--	6800	--	430	--	--	--	--
14...	1140	5	--	200	--	4800	--	--	--	--
DEC										
17...	0400	23	--	1200	--	210	--	--	--	--
17...	0401	37	--	1200	--	470	--	--	--	--
17...	0402	22	--	2000	--	240	--	--	--	--
JAN										
03...	1145	12	--	300	--	5600	--	--	--	--
22...	1600	5	--	300	--	2500	--	--	--	--
FEB										
11...	1901	--	--	--	--	360	--	--	--	--
15...	1045	20	1	1600	0	700	590	--	--	--
MAR										
15...	0830	11	11	200	100	--	6200	1	1	50
28...	0930	3	0	200	0	--	1900	--	--	--
MAY										
09...	0800	10	6	200	100	--	600	--	--	--
24...	0830	5	3	200	100	--	6500	0	0	10
25...	0935	5	--	200	--	--	--	--	--	--
31...	1445	9	1	400	100	--	300	--	--	--
JUL										
11...	1230	7	0	300	100	9300	9300	--	--	--
AUG										
01...	0745	12	10	0	100	9600	9500	--	--	--
20...	1535	12	11	100	100	4000	4000	--	--	--
20...	1540	9	--	300	--	4200	--	--	--	--
SEP										
27...	0900	5	1	300	200	--	8100	2	2	40

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
OCT										
24...	0	--	--	--	14	--	60	1	1	--
NOV										
03...	--	--	--	--	--	450000	--	700	--	15000
03...	--	--	--	--	--	510000	--	800	--	18000
03...	--	--	--	--	--	500000	--	800	--	18000
03...	--	--	--	--	--	580000	--	1500	--	38000
03...	--	--	--	--	--	440000	--	1000	--	24000
03...	--	--	--	--	--	490000	--	1000	--	21000
03...	--	--	--	--	--	430000	--	900	--	18000
14...	--	--	--	--	--	17000	--	100	--	1600
DEC										
17...	--	--	--	--	--	170000	--	400	--	5500
17...	--	--	--	--	--	230000	--	300	--	6500
17...	--	--	--	--	--	150000	--	300	--	6200
JAN										
03...	--	--	--	--	--	12000	--	200	--	950
22...	--	--	--	--	--	17000	--	200	--	740
FEB										
11...	--	--	--	--	--	260000	--	--	--	11000
15...	--	--	--	--	--	260000	50	300	0	6700
MAR										
15...	20	11	10	80	42	19000	3800	14	10	1400
28...	--	--	--	--	--	6600	30	100	0	680
MAY										
09...	--	--	--	--	--	4300	10	0	0	410
24...	10	6	4	17	0	4000	150	7	0	900
25...	--	--	--	--	--	6800	--	0	--	920
31...	--	--	--	--	--	10000	110	100	0	850
JUL										
11...	--	--	--	--	--	13000	20	200	0	320
AUG										
01...	--	--	--	--	--	9000	60	0	0	340
20...	--	--	--	--	--	11000	7200	0	18	540
20...	--	--	--	--	--	20000	--	0	--	640
SEP										
27...	40	9	9	--	100	6800	5000	9	8	940

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT										
24...	640	.4	.0	--	16	--	0	--	90	--
NOV										
03...	--	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	--	--	--	--
DEC										
17...	--	--	--	--	--	--	--	--	--	40
17...	--	--	--	--	--	--	--	--	--	40
17...	--	--	--	--	--	--	--	--	--	40
JAN										
03...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
FEB										
11...	--	--	--	--	--	--	--	--	--	40
15...	0	--	--	--	--	--	--	--	--	--
MAR										
15...	1500	1.2	.0	310	220	0	0	310	270	--
28...	640	--	--	--	--	--	--	--	--	--
MAY										
09...	210	--	--	46	35	--	--	--	--	--
24...	840	.2	.0	450	420	0	0	80	60	--
25...	--	--	--	470	--	--	--	--	--	--
31...	690	--	--	420	E360	--	--	--	--	--
JUL										
11...	90	--	--	630	--	--	--	--	--	--
AUG										
01...	240	--	--	560	--	--	--	--	--	--
20...	530	--	--	200	180	--	--	--	--	--
20...	--	--	--	200	--	--	--	--	--	26
SEP										
27...	960	2.9	1.2	630	590	0	0	280	280	--

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN,TOT IN BOT- TOM MA- TERIAL (MG/KG AS N) (00603)	PHOS- PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)
DEC									
21...	1130	.8	--	240	7	0	0	0	7
MAR									
15...	0830	12	--	250	6	0	2	0	4
MAY									
24...	0830	1.4	64	250	3	0	5	0	8
SEP									
27...	0900	.0	420	760	6	0	4	10	6

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C) (00693)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C) (00687)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C) (00686)
DEC 21...	2600	10	180	.01	0	20	--	--	--
MAR 15...	2400	0	75	.10	0	12	2.7	1.2	1.5
MAY 24...	14000	0	210	.00	1	43	1.4	.0	1.4
SEP 27...	3200	30	150	.08	2	28	13	11	2.1

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DISSOLVED, EXTRACTION (UG/L) (80020)
DEC 21...	1130	<66	16	<22	8.7	<20	8.2	.07	7.5
MAR 15...	0830	<180	29	<49	12	<44	10	.21	15
MAY 24...	0830	<160	4.9	<51	3.1	<47	6.1	.26	4.6
SEP 27...	0900	<140	--	<40	--	<35	--	.07	18

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
DEC 21...	1130	0	0
MAR 15...	0830	0	0
MAY 24...	0830	930	2100
SEP 27...	0900	0	2

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE TIME	DEC 21,78 1130	MAR 15,79 0830	MAY 24,79 0830	SEP 27,79 0900
TOTAL CELLS/ML	160	1900	660	13
DIVERSITY: DIVISION	1.2	0.7	0.0	0.0
.CLASS	1.2	0.7	0.0	0.0
..ORDER	1.7	1.4	0.0	0.0
...FAMILY	2.3	1.9	1.3	0.0
....GENUS	2.3	1.9	1.4	0.0

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...SCENEDESMACEAE								
....SCENEDESMUS	31#	19	280#	15	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	23	14	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	8	5	1100#	60	--	-	--	-
..PENNALES								
...CYMBELLACEAE								
....CYMBELLA	--	-	35	2	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	140	8	--	-	--	-
....SYNEDRA	8	5	--	-	64	10	--	-
...NAVICULACEAE								
....ENTOMONEIS	--	-	--	-	26	4	--	-
....NAVICULA	15	10	140	8	77	12	--	-
...NITZSCHIACEAE								
....NITZSCHIA	70#	43	71	4	460#	71	13#	100
...SURIRELLACEAE								
....SURIRELLA	--	-	35	2	26	4	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	8	5	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....TRACHELOMONAS	--	-	35	2	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09367561 SHUMWAY ARROYO NEAR WATERFLOW, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SAMPLE SOURCE (72005)
OCT								
21...	2315	E19	--	20200	34	--	--	26
21...	2330	E21	--	49600	--	--	--	26
21...	2345	E19	--	42800	--	--	--	26
21...	2400	E17	--	37700	84	--	--	26
22...	0015	E15	--	34700	--	--	--	26
22...	0030	E13	--	30900	--	--	--	26
22...	0045	E11	--	30900	--	--	--	26
22...	0100	E10	--	29400	--	--	--	26
22...	0115	E12	--	25100	--	--	--	26
22...	0130	E15	--	33200	--	--	--	26
22...	0145	E13	--	35000	--	--	--	26
22...	0200	E10	--	30900	91	--	--	26
22...	0215	E8.5	--	21700	--	--	--	26
22...	0230	E7.8	--	21900	--	--	--	26
22...	0245	E7.2	--	5290	--	--	--	26
22...	0300	E6.7	--	44700	--	--	--	26
24...	1625	2.3	12.0	1470	18	--	--	--
NOV								
03...	0910	E10	--	53300	80	--	--	40
03...	0911	E10	--	66900	74	--	--	40
03...	0912	E10	--	64100	76	--	--	40
03...	0915	E30	--	190000	43	--	--	40
03...	0917	E30	--	129000	54	--	--	40
03...	0921	E60	--	83200	62	--	--	40
03...	0922	E60	--	76400	65	--	--	40
14...	1140	E3.1	8.0	1320	--	--	--	--
DEC								
17...	0400	E10	--	21900	69	--	--	40
17...	0401	E10	--	22600	72	--	--	40
17...	0402	E10	--	23300	71	--	--	40
21...	1130	E5.0	3.0	209	93	99	100	--
JAN								
03...	1145	1.0	.0	1450	--	--	--	--
22...	1600	2.3	3.0	1210	--	--	--	--
FEB								
11...	1901	E10	--	49600	65	--	--	40
15...	1045	13	2.0	23800	85	--	--	--
MAR								
28...	0930	2.0	11.0	457	47	--	--	--
MAY								
09...	0800	1.2	7.0	433	44	--	--	--

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
MAY						
24...	0830	E3.0	17.0	174	59	--
25...	0935	2.5	--	475	65	--
31...	1445	2.5	22.5	1110	63	--
JUL						
11...	1230	2.0	--	5340	95	--
AUG						
01...	0745	2.3	18.5	831	55	--
01...	0800	E2.3	18.5	428	54	26
20...	1535	2.6	--	1090	47	--
20...	1540	E2.6	--	1160	32	26
SEP						
27...	0900	E5.0	17.0	69	94	--

09367660 CHACO WASH NEAR STAR LAKE TRADING POST, NM

LOCATION.--Lat 35°56'07", long 107°31'39", in NE¼NW¼SE¼ sec.25, T.20 N., R.7 W., McKinley County, Hydrologic Unit 14080106, on right bank, 4.8 mi (7.7 km) northwest of Star Lake Trading Post, and 7.6 mi (12.2 km) southeast of Pueblo Pintada.

DRAINAGE AREA.--59.0 mi² (153 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,580 ft (2,006 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 97 ft³/s (2.75 m³/s), Oct. 3, 1977, gage height, 4.60 ft (1.402 m) on basis of step-backwater analysis; no flow many days.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 79 ft³/s (2.24 m³/s) at 2000 hours Dec. 19, gage height, 4.30 ft (1.311 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	3.8	.00	2.4	.00	.00	.03	.00	.00	.00
2	.00	.00	.00	2.3	.00	3.1	.00	.00	.30	1.3	.00	.00
3	.00	.02	.00	.00	.00	2.0	.00	.00	.00	.10	.00	.00
4	.00	.55	.00	.00	.00	.70	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.40	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	1.6	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	4.9	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	12	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	8.9	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	2.4	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	1.6	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.00	.80	1.7	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	33	1.6	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	61	.95	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.00	54	.71	.00	.00	.00	.00	3.9	.00
16	.00	.00	.00	.00	59	.79	.00	.00	.00	.00	4.7	.00
17	.00	.00	.17	.67	42	1.6	.00	.00	.00	.00	4.8	.00
18	.00	.00	.90	28	29	1.1	.00	.00	.00	.00	.75	.00
19	.00	.00	19	38	22	4.0	.00	.00	.00	.99	.07	.00
20	.00	.00	12	38	19	5.4	.00	.00	.00	.11	.00	.00
21	.00	.00	8.6	30	13	2.7	.00	3.2	.00	.00	.00	.00
22	1.7	.00	2.4	23	8.0	.04	.00	.38	.00	.00	.00	.00
23	.26	.00	3.5	15	7.6	1.5	.00	.00	.00	.00	.00	.00
24	.26	1.5	4.0	3.1	4.9	.01	.00	.25	.00	.00	.00	.00
25	.15	6.3	2.9	2.0	3.5	.00	.00	1.3	.00	.00	.00	.00
26	.31	.13	6.5	1.0	1.8	.00	.00	.09	.00	.00	.00	.00
27	.01	.00	4.5	.00	1.6	.00	.00	.97	.00	.00	.00	.00
28	.00	.00	3.9	.00	2.6	.00	.00	1.8	.00	.00	.00	.00
29	.00	.00	.64	.00	---	.00	.00	.33	.00	.00	.00	.00
30	.00	.00	1.9	.00	---	.00	.00	.06	.00	.00	.00	.00
31	.00	---	7.6	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	2.69	8.50	78.51	184.87	362.80	62.10	.00	8.38	.33	2.50	14.22	.00
MEAN	.087	.28	2.53	5.96	13.0	2.00	.000	.27	.011	.081	.46	.000
MAX	1.7	6.3	19	38	61	12	.00	3.2	.30	1.3	4.8	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	5.3	17	156	367	720	123	.00	17	.7	5.0	28	.00

CAL YR 1978 TOTAL 277.55 MEAN .76 MAX 32 MIN .00 AC-FT 550
WTR YR 1979 TOTAL 724.90 MEAN 1.99 MAX 61 MIN .00 AC-FT 1440

Note: No gage-height record January 22, 23, January 25 to March 5 and March 31 to April 5.

09367660 CHACO WASH NEAR STARLAKE TRADINGPOST, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Under the heading of SAMPLE SOURCE numerical values are used to indicate sampling method; 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
NOV												
04...	1600	E1.6	395	7.6	--	--	--	--	--	--	--	--
25...	0100	E7.8	355	7.6	--	--	--	--	--	--	--	--
DEC												
17...	1830	E1.6	208	7.4	--	--	--	--	--	--	--	--
19...	1630	E7.8	240	7.4	--	--	--	--	--	--	--	--
19...	1700	E36	185	7.5	--	--	--	--	--	--	--	--
JAN												
17...	2130	E1.6	255	7.3	--	--	--	--	--	--	--	--
17...	2400	E8.1	102	7.1	--	--	--	--	--	--	--	--
FEB												
14...	2130	E34	223	7.5	--	--	--	--	--	--	--	--
14...	2200	E113	203	7.5	--	--	--	--	--	--	--	--
MAR												
05...	1530	.65	282	8.3	6.0	5.5	9.4	20	0	7.3	.5	53
06...	0030	E1.6	355	7.5	--	--	--	--	--	--	--	--
07...	2040	E8.1	335	7.3	--	--	--	--	--	--	--	--
MAY												
21...	0100	E1.6	665	7.5	--	--	--	--	--	--	--	--
21...	0215	E34	480	7.2	--	--	--	--	--	--	--	--
JUN												
01...	2330	E1.6	455	7.9	--	--	--	--	--	--	--	--
JUL												
02...	0030	E1.6	325	7.6	--	--	--	--	--	--	--	--
19...	0600	E1.6	400	7.9	--	--	--	--	--	--	--	--
AUG												
15...	0900	E1.4	232	7.8	--	--	--	--	--	--	--	--
16...	1145	8.1	320	8.6	22.0	17.0	7.5	11	0	4.4	.1	63
16...	2040	E14	383	7.5	--	--	--	--	--	--	--	--

DATE	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
NOV												
04...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
17...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
17...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
FEB												
14...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--	--
MAR												
05...	5.1	1.5	86	0	71	66	4.0	.3	7.5	193	183	1.5
06...	--	--	--	--	--	--	--	--	--	--	--	--
07...	--	--	--	--	--	--	--	--	--	--	--	--
MAY												
21...	--	--	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
JUN												
01...	--	--	--	--	--	--	--	--	--	--	--	--
JUL												
02...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
AUG												
15...	--	--	--	--	--	--	--	--	--	--	--	--
16...	9.6	2.0	98	4	87	82	4.0	.4	4.7	223	214	1.1
16...	--	--	--	--	--	--	--	--	--	--	--	--

09367660 CHACO WASH NEAR STARLAKE TRADINGPOST, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
NOV											
04...	--	--	--	--	--	--	--	99	--	--	40
25...	--	--	--	--	--	--	--	120	--	--	40
DEC											
17...	--	--	--	--	--	--	--	36	--	--	40
19...	--	--	--	--	--	--	--	38	--	--	40
19...	--	--	--	--	--	--	--	35	--	--	40
JAN											
17...	--	--	--	--	--	--	--	18	--	--	40
17...	--	--	--	--	--	--	--	29	--	--	40
FEB											
14...	--	--	--	--	--	--	--	29	--	--	40
14...	--	--	--	--	--	--	--	12	--	--	40
MAR											
05...	.02	1.4	2.9	.580	70	170	--	--	5.0	.8.0	--
06...	--	--	--	--	--	--	--	91	--	--	40
07...	--	--	--	--	--	--	--	70	--	--	40
MAY											
21...	--	--	--	--	--	--	--	120	--	--	40
21...	--	--	--	--	--	--	--	110	--	--	40
JUN											
01...	--	--	--	--	--	--	--	73	--	--	40
JUL											
02...	--	--	--	--	--	--	--	73	--	--	40
19...	--	--	--	--	--	--	--	170	--	--	40
AUG											
15...	--	--	--	--	--	--	--	86	--	--	40
16...	.62	2.7	4.4	.120	50	1000	5	--	8.8	26	--
16...	--	--	--	--	--	--	--	98	--	--	40

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)
NOV												
04...	1600	--	37	--	--	--	--	--	--	--	--	--
25...	0100	--	50	--	--	--	--	--	--	--	--	--
DEC												
17...	1830	--	5	--	--	--	--	--	--	--	--	--
19...	1630	--	5	--	--	--	--	--	--	--	--	--
19...	1700	--	13	--	--	--	--	--	--	--	--	--
JAN												
17...	2130	--	33	--	--	--	--	--	--	--	--	--
17...	2400	--	7	--	--	--	--	--	--	--	--	--
FEB												
14...	2130	--	9	--	--	--	--	--	--	--	--	--
14...	2200	--	4	--	--	--	--	--	--	--	--	--
MAR												
06...	0030	--	20	--	--	--	--	--	--	--	--	--
07...	2040	--	23	--	--	--	--	--	--	--	--	--
MAY												
21...	0100	--	22	--	--	--	--	--	--	--	--	--
21...	0215	--	29	--	--	--	--	--	--	--	--	--
JUN												
01...	2330	--	14	--	--	--	--	--	--	--	--	--
JUL												
02...	0030	--	17	--	--	--	--	--	--	--	--	--
19...	0600	--	67	--	--	--	--	--	--	--	--	--
AUG												
15...	0900	--	37	--	--	--	--	--	--	--	--	--
16...	1145	270	--	1	10	<1	50	<1	10	<3	11	1000
16...	2040	--	64	--	--	--	--	--	--	--	--	--

09367660 CHACO WASH NEAR STARLAKE TRADINGPOST, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
NOV												
04...	--	--	--	.4	--	--	--	0	--	--	--	40
25...	--	--	--	.4	--	--	--	0	--	--	--	40
DEC												
17...	--	--	--	.0	--	--	--	0	--	--	--	40
19...	--	--	--	.1	--	--	--	0	--	--	--	40
19...	--	--	--	.1	--	--	--	0	--	--	--	40
JAN												
17...	--	--	--	.1	--	--	--	1	--	--	--	40
17...	--	--	--	.1	--	--	--	1	--	--	--	40
FEB												
14...	--	--	--	.1	--	--	--	1	--	--	--	40
14...	--	--	--	.1	--	--	--	0	--	--	--	40
MAR												
06...	--	--	--	.5	--	--	--	3	--	--	--	40
07...	--	--	--	.6	--	--	--	4	--	--	--	40
MAY												
21...	--	--	--	.7	--	--	--	5	--	--	--	40
21...	--	--	--	.8	--	--	--	8	--	--	--	40
JUN												
01...	--	--	--	.7	--	--	--	3	--	--	--	40
JUL												
02...	--	--	--	.7	--	--	--	3	--	--	--	40
19...	--	--	--	.9	--	--	--	12	--	--	--	40
AUG												
15...	--	--	--	.5	--	--	--	5	--	--	--	40
16...	3	<4	5	--	.0	<10	4	--	1	3.0	8	--
16...	--	--	--	1.1	--	--	--	5	--	--	--	40

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
MAR			
05...	1530	K360	7400
AUG			
16...	1145	K290	23000

09367660 CHACO WASH NEAR STARLAKE TRADINGPOST, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV								
04...	1600	E1.6	--	14800	--	--	--	--
25...	0100	E7.8	--	14900	--	--	--	--
DEC								
17...	1830	E1.6	--	2490	--	--	--	--
19...	1630	E7.8	--	3130	--	--	--	--
19...	1700	E36	--	4560	--	--	--	--
JAN								
17...	2130	E1.6	--	856	--	--	--	--
17...	2400	E8.1	--	1730	--	--	--	--
FEB								
14...	2130	E34	--	3620	--	--	--	--
14...	2200	E113	--	1400	--	--	--	--
MAR								
05...	1530	.65	5.5	1960	--	--	--	--
06...	0030	E1.6	--	12500	--	--	--	--
07...	2040	E8.1	--	13500	--	--	--	--
MAY								
21...	0100	E1.6	--	19700	--	--	--	--
21...	0215	E34	--	19200	--	--	--	--
JUN								
01...	2330	E1.6	--	9350	--	--	--	--
JUL								
02...	0030	E1.6	--	11400	--	--	--	--
19...	0600	E1.6	--	24400	--	--	--	--
AUG								
15...	0900	E1.4	--	12500	--	--	--	--
16...	1140	8.1	17.0	15500	--	--	--	--
16...	1145	8.1	17.0	22500	85	92	96	99
16...	1207	6.2	17.0	15300	--	--	--	--
16...	1235	4.3	17.0	14900	--	--	--	--
16...	1350	2.6	17.0	14700	--	--	--	--
16...	2040	E14	--	20300	--	--	--	--

DATE	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	SAMPLE SOURCE (72005)
NOV							
04...	--	--	--	--	--	--	40
25...	--	--	--	--	--	--	40
DEC							
17...	--	--	--	--	--	--	40
19...	--	--	--	--	--	--	40
19...	--	--	--	--	--	--	40
JAN							
17...	--	--	--	--	--	--	40
17...	--	--	--	--	--	--	40
FEB							
14...	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	40
MAR							
05...	--	--	--	--	--	--	--
06...	--	--	--	--	--	--	40
07...	--	--	--	--	--	--	40
MAY							
21...	--	--	--	--	--	--	40
21...	--	--	--	--	--	--	40
JUN							
01...	--	--	--	--	--	--	40
JUL							
02...	--	--	--	--	--	--	40
19...	--	--	--	--	--	--	40
AUG							
15...	--	--	--	--	--	--	40
16...	--	--	--	--	--	--	--
16...	100	7	11	72	97	100	--
16...	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	40

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM

LOCATION.--Lat 36°01'43", long 107°55'04", in NW¼NE¼ sec. 29, T.21 N., R.10 W., San Juan County, Hydrologic Unit 14080106, on downstream side of center bridge pier, 800 ft (240 m) downstream from Fajada Wash, and 0.5 mi (0.8 km) southwest of Chaco Canyon National Monument Visitors Center.

DRAINAGE AREA.--578 mi² (1,497 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--April 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,140 ft (1,871 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,260 ft³/s (35.7 m³/s) Jan. 18, 1979, gage height, 6.62 ft (2.018 m), from rating curve extended above 350 ft³/s (9.91 m³/s) on basis of slope-area measurements at gage heights, 3.44 ft (1.049 m), 3.68 ft (1.122 m) and 5.32 ft (1.622 m); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum(*).

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 25	1930	291	8.24	3.05	0.930
Jan. 18	Unknown	a*1,260	35.7	6.62	2.018
Feb. 16	0215	1,170	33.1	6.34	1.932
Mar. 9	0330	232	6.57	2.80	0.853
May 26	0215	177	5.01	2.57	0.783
June 2	0245	898	25.4	5.42	1.652
July 1	2015	411	11.6	3.58	1.091
Aug. 16	0230	160	4.53	2.50	0.762

a From rating curve extended above 350 ft³/s (9.91 m³/s) as explained above.

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.50	.00	.00	12	.00	.00	16	72	.00	.00
2	.00	.00	1.0	.00	.00	8.9	.00	.00	339	44	.00	.00
3	.00	.73	.10	.00	.00	4.1	.00	.00	48	.00	.00	.00
4	.00	1.9	.00	.00	.00	1.4	.00	.00	.12	.00	.00	.00
5	.00	1.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.41	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.21	.00	2.8	.00	16	.00	.00	.00	.00	.00	.00
8	.00	.06	.00	.00	.00	97	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	135	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	72	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.66	16	.00	.00	.00	.00	.00	.00
12	.00	.10	.00	2.8	1.6	3.8	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	6.4	333	3.2	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	1.7	606	3.2	.00	.00	.00	.00	1.1	.00
15	.00	.11	.00	4.4	539	4.4	.00	.00	.00	.00	3.2	.00
16	.00	.25	.00	25	589	3.5	.00	.00	.00	.00	89	.00
17	.00	.00	.00	50	471	2.2	.00	.00	.00	6.4	27	.00
18	.00	.00	.51	402	291	8.4	.00	.00	.00	16	.12	.00
19	.00	.00	.91	427	220	2.8	.00	.00	.00	114	.00	.00
20	.00	.00	1.2	160	191	.60	.00	.12	.00	12	.00	.00
21	.00	.00	1.0	3.5	126	.54	.00	.12	.00	.00	.00	.00
22	1.2	.00	1.4	3.0	80	3.5	.00	.00	.00	.00	.00	.00
23	1.3	.00	1.3	4.0	76	2.2	.00	.00	.00	.00	.00	.00
24	.30	1.4	.90	3.5	59	1.2	.00	3.2	.00	.00	.00	.00
25	.06	1.0	.44	3.0	9.9	.54	.00	.92	.00	.00	.00	.00
26	6.3	.06	.50	2.0	5.1	.30	.00	36	.00	.00	.00	.00
27	.78	.00	.60	.00	16	.00	.00	.92	.00	.00	.00	.00
28	.24	.00	1.6	.00	13	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	1.2	.00	---	.00	.00	.54	.00	.00	.00	.00
30	.00	.00	1.0	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.60	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	10.18	7.43	14.76	1101.10	3627.26	402.78	.00	41.82	403.12	264.40	120.42	.00
MEAN	.33	.25	.48	35.5	130	13.0	.000	1.35	13.4	8.53	3.88	.000
MAX	6.3	1.9	1.6	427	606	135	.00	36	339	114	89	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	20	15	29	2180	7190	799	.00	83	800	524	239	.00

CAL YR 1978 TOTAL 742.89 MEAN 2.04 MAX 160 MIN .00 AC-FT 1470
WTR YR 1979 TOTAL 5993.27 MEAN 16.4 MAX 606 MIN .00 AC-FT 11890

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 29 indicates dip or grab sample and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW (CFS) (00060)*	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
OCT												
22-27	--	1.6	--	520	6.3	--	84	0	30	2.2	75	3.6
NOV												
02-04	--	1.3	--	550	7.3	--	--	--	--	--	--	--
03...	1400	--	1.3	408	7.8	10.5	--	--	--	--	--	--
05...	1330	--	E.34	500	6.8	14.0	--	--	--	--	--	--
16...	--	.47	--	550	7.0	--	--	--	--	--	--	--
25...	--	46	--	720	7.6	--	--	--	--	--	--	--
DEC												
19-26	--	1.0	--	450	7.2	--	--	--	--	--	--	--
JAN												
04...	1450	--	E.50	470	7.3	.0	--	--	--	--	--	--
12-21	--	108	--	340	7.1	--	55	0	19	1.8	51	3.0
19...	0805	--	E1100	365	7.7	--	--	--	--	--	--	--
19...	1352	--	253	265	7.4	.5	70	0	24	2.5	37	1.9
23...	1500	--	.01	320	6.7	--	--	--	--	--	--	--
FEB												
13...	1750	--	E132	340	7.5	--	--	--	--	--	--	--
13...	2030	--	E510	325	7.4	--	--	--	--	--	--	--
13-24	--	341	--	360	7.8	--	--	--	--	--	--	--
14...	1715	--	E388	385	7.8	3.0	--	--	--	--	--	--
15...	0300	--	E1630	185	7.2	--	--	--	--	--	--	--
25-26	--	7.5	--	385	7.6	--	--	--	--	--	--	--
MAR												
07...	1435	--	17	460	7.6	4.0	--	--	--	--	--	--
07...	1545	--	E29	440	7.4	8.0	--	--	--	--	--	--
08...	0400	--	162	490	7.6	--	--	--	--	--	--	--
08...	0745	--	E117	410	7.4	4.0	--	--	--	--	--	--
08-12	--	60	--	405	7.3	--	50	0	18	1.3	74	4.5
09...	0215	--	E155	470	7.5	6.5	--	--	--	--	--	--
09...	0315	--	E203	420	7.8	5.5	--	--	--	--	--	--
09...	0900	--	E125	350	7.3	4.5	--	--	--	--	--	--
10...	0930	--	E71	370	7.3	.5	--	--	--	--	--	--
12...	1730	--	E15	400	7.3	11.2	--	--	--	--	--	--
13-17	--	3.3	--	470	7.3	--	42	0	15	1.1	91	6.1
MAY												
26...	1250	--	E21	330	7.3	12.0	--	--	--	--	--	--
26...	1630	--	E20	360	7.4	16.0	--	--	--	--	--	--
27...	1015	--	E1.4	320	7.4	14.5	--	--	--	--	--	--
JUN												
01...	2230	--	E101	830	7.2	--	--	--	--	--	--	--
02...	0100	--	E1330	420	7.9	--	--	--	--	--	--	--
02...	1215	--	E160	350	6.7	9.0	--	--	--	--	--	--
JUL												
01...	2030	--	E101	900	6.8	--	--	--	--	--	--	--
17...	2330	--	E65	800	7.8	--	--	--	--	--	--	--

* Mean daily streamflow for composite.

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
OCT											
22-27	3.6	120	98	59	6.7	.5	11	281	<253	42	1.2
NOV											
02-04	--	256	210	--	--	--	--	--	--	--	--
03...	--	232	190	--	--	--	--	--	--	--	--
05...	--	220	180	--	--	--	--	--	--	--	--
16...	--	148	121	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
DEC											
19-26	--	204	167	--	--	--	--	--	--	--	--
JAN											
04...	--	188	154	--	--	--	--	--	--	--	--
12-21	3.5	--	110	41	5.5	.4	7.6	--	196	1.2	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	3.3	--	89	48	4.7	.3	7.9	--	181	1.0	--
23...	--	120	98	--	--	--	--	--	--	--	--
FEB											
13...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
13-24	--	--	--	--	--	--	--	--	--	--	--
14...	--	252	207	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	--
25-26	--	--	--	--	--	--	--	--	--	--	--
MAR											
07...	--	196	161	--	--	--	--	--	--	--	--
07...	--	212	174	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
08...	--	196	161	--	--	--	--	--	--	--	--
08-12	2.8	190	156	50	3.3	.7	9.6	264	256	.64	.66
09...	--	216	177	--	--	--	--	--	--	--	--
09...	--	208	171	--	--	--	--	--	--	--	--
09...	--	184	151	--	--	--	--	--	--	--	--
10...	--	184	151	--	--	--	--	--	--	--	--
12...	--	192	157	--	--	--	--	--	--	--	--
13-17	2.5	200	164	58	4.0	.8	10	295	287	1.3	1.4
MAY											
26...	--	--	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	--	--	--	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
02...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	SAMPLE SOURCE (72005)
OCT											
22-27	.03	1.1	43	.520	.06	—	10	0	100	6.4	--
NOV											
02-04	--	--	--	--	--	70	30	0	--	--	--
03...	--	--	--	--	--	70	40	0	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	50	170	0	--	--	29
25...	--	--	--	--	--	70	90	0	--	--	--
DEC											
19-26	--	--	--	--	--	70	5000	20	--	--	--
JAN											
04...	--	--	--	--	--	60	30	0	--	--	--
12-21	.05	3.3	4.5	.840	--	60	240	0	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	40
19...	.02	7.7	8.7	2.10	--	50	40	0	--	--	--
23...	--	--	--	--	--	40	80	0	--	--	--
FEB											
13...	--	--	--	--	--	--	--	--	--	--	40
13...	--	--	--	--	--	--	--	--	--	--	40
13-24	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	40
25-26	--	--	--	--	--	40	50	0	--	--	--
MAR											
07...	--	--	--	--	--	60	520	0	--	--	--
07...	--	--	--	--	--	70	50	0	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	40
08...	--	--	--	--	--	300	200	0	--	--	--
08-12	.06	--	--	5.00	--	40	--	--	--	--	--
09...	--	--	--	--	--	160	80	10	--	--	--
09...	--	--	--	--	--	50	130	0	--	--	--
09...	--	--	--	--	--	50	270	0	--	--	--
10...	--	--	--	--	--	40	190	0	--	--	--
12...	--	--	--	--	--	290	60	0	--	--	--
13-17	.04	--	--	1.90	--	170	--	--	--	--	--
MAY											
26...	--	--	--	--	--	60	30	0	--	--	--
26...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	--	60	20	0	--	--	--
JUN											
01...	--	--	--	--	--	--	--	--	--	--	40
02...	--	--	--	--	--	--	--	--	--	--	40
02...	--	--	--	--	--	--	--	--	--	--	--
JUL											
01...	--	--	--	--	--	--	--	--	--	--	40
17...	--	--	--	--	--	--	--	--	--	--	40

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT										
22-27	--	25	1	1200	0	--	--	0	0	40
NOV										
02-04	--	15	2	1200	100	200	70	--	--	--
03...	1400	7	1	1600	0	140	70	--	--	--
05...	1330	15	--	1600	--	140	--	--	--	--
16...	--	8	1	600	0	150	50	--	--	--
25...	--	53	3	4800	100	170	70	--	--	--
DEC										
19-26	--	7	5	1600	100	100	70	--	--	--
JAN										
04...	1450	5	3	1000	0	120	60	--	--	--
12-21	--	7	2	900	0	100	60	--	--	--
19...	0805	4	--	1600	--	--	--	--	--	--
19...	1352	--	--	3000	0	--	50	--	--	--
23...	1500	4	1	500	0	130	40	--	--	--
FEB										
13...	1750	11	--	2000	--	--	--	--	--	--
13...	2030	25	--	2000	--	210	--	--	--	--
14...	1715	18	--	3000	--	140	--	--	--	--
15...	0300	4	--	1600	--	210	--	--	--	--
25-26	--	29	1	1200	100	140	40	--	--	--
MAR										
07...	1435	37	2	10000	0	230	60	--	--	--
07...	1545	65	2	3600	100	210	70	--	--	--
08...	0745	50	3	4000	100	--	300	--	--	--
09...	0215	38	2	2400	100	--	160	--	--	--
09...	0315	56	3	2800	100	140	50	--	--	--
09...	0900	25	4	3200	100	130	50	--	--	--
10...	0930	27	2	2400	100	110	40	--	--	--
12...	1730	38	2	1600	100	--	290	--	--	--
MAY										
26...	1250	--	0	--	0	--	60	--	--	--
26...	1630	17	--	2100	--	190	--	--	--	--
27...	1015	--	1	--	0	--	60	--	--	--
JUN										
01...	2230	52	--	8500	--	350	--	--	--	--
02...	0100	15	--	5000	--	240	--	--	--	--
02...	1215	22	--	3000	--	210	--	--	--	--
JUL										
01...	2030	17	--	9500	--	550	--	--	--	--
17...	2330	42	--	7500	--	370	--	--	--	--

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
OCT										
22-27	0	51	0	26	4	90000	10	150	0	2200
NOV										
02-04	--	--	--	--	--	140000	30	300	0	2800
03...	--	--	--	--	--	140000	40	300	33	2300
05...	--	--	--	--	--	120000	--	300	--	1800
16...	--	--	--	--	--	80000	170	300	0	1000
25...	--	--	--	--	--	280000	90	800	0	10000
DEC										
19-26	--	--	--	--	--	60000	5000	200	7	1300
JAN										
04...	--	--	--	--	--	83000	30	200	87	770
12-21	--	--	--	--	--	51000	240	200	0	1100
19...	--	--	--	--	--	100000	--	200	--	3900
19...	--	--	--	--	--	240000	40	300	3	3500
23...	--	--	--	--	--	32000	80	0	0	470
FEB										
13...	--	--	--	--	--	210000	--	400	--	6600
13...	--	--	--	--	--	270000	--	500	--	8000
14...	--	--	--	--	--	180000	--	600	--	7900
15...	--	--	--	--	--	--	--	100	--	3100
25-26	--	--	--	--	--	130000	50	200	0	2000
MAR										
07...	--	--	--	--	--	300000	520	600	0	10000
07...	--	--	--	--	--	130000	50	500	0	8800
08...	--	--	--	--	--	110000	200	500	0	11000
09...	--	--	--	--	--	85000	80	400	0	8500
09...	--	--	--	--	--	100000	130	400	0	11000
09...	--	--	--	--	--	94000	270	500	0	8600
10...	--	--	--	--	--	82000	190	500	0	5800
12...	--	--	--	--	--	79000	60	400	0	4000
MAY										
26...	--	--	--	--	--	--	30	--	0	--
26...	--	--	--	--	--	210000	--	400	--	4000
27...	--	--	--	--	--	--	20	--	0	--
JUN										
01...	--	--	--	--	--	690000	--	1800	--	30000
02...	--	--	--	--	--	390000	--	900	--	13000
02...	--	--	--	--	--	270000	--	600	--	6600
JUL										
01...	--	--	--	--	--	680000	--	1400	--	22000
17...	--	--	--	--	--	400000	--	1200	--	17000

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT										
22-27	0	.6	.1	6	0	0	0	400	40	--
NOV										
02-04	0	--	--	--	--	--	--	--	--	--
03...	0	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--
16...	0	--	--	--	--	--	--	--	--	29
25...	0	--	--	--	--	--	--	--	--	--
DEC										
19-26	20	--	--	--	--	--	--	--	--	--
JAN										
04...	0	--	--	--	--	--	--	--	--	--
12-21	0	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	40
19...	0	--	--	--	--	--	--	--	--	--
23...	0	--	--	--	--	--	--	--	--	40
FEB										
13...	--	--	--	--	--	--	--	--	--	40
13...	--	--	--	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	40
25-26	0	--	--	4	1	--	--	--	--	--
MAR										
07...	0	--	--	--	--	--	--	--	--	--
07...	0	--	--	--	--	--	--	--	--	--
08...	0	--	--	--	--	--	--	--	--	40
09...	10	--	--	--	--	--	--	--	--	--
09...	0	--	--	--	--	--	--	--	--	--
09...	0	--	--	--	--	--	--	--	--	--
10...	0	--	--	--	--	--	--	--	--	--
12...	0	--	--	--	--	--	--	--	--	--
MAY										
26...	0	--	--	--	--	--	--	--	--	--
26...	--	--	--	3	--	--	--	--	--	--
27...	0	--	--	--	--	--	--	--	--	--
JUN										
01...	--	--	--	7	--	--	--	--	--	40
02...	--	--	--	7	--	--	--	--	--	40
02...	--	--	--	3	--	--	--	--	--	--
JUL										
01...	--	--	--	6	--	--	--	--	--	40
17...	--	--	--	9	--	--	--	--	--	40

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DISSOLVED, EXTRACTION (UG/L) (80020)
OCT								
22-27	<5.0	540	5.1	290	4.7	270	.08	.07
JAN								
12-21	<3.2	150	4.7	86	4.4	76	.16	1.1
FEB								
13-24	6.0	300	5.0	240	4.7	220	.06	2.1

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW (CFS) (00060)*	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
OCT							
22...	0740	--	E1.8	7.0	12400	100	29
22...	0830	--	E1.6	8.0	12500	100	29
22...	1300	--	.00	11.0	12400	--	--
23...	1200	--	E.89	9.0	13700	--	29
23...	1430	--	E4.0	--	24400	100	29
23...	1500	--	E4.0	--	23400	100	29
23...	1700	--	E3.5	10.0	25600	--	29
23...	1800	--	E3.2	9.0	28700	--	29
24...	1300	--	E.63	--	18100	100	29
24...	1400	--	E.56	--	20800	99	29
24...	2400	--	E.35	7.0	14200	--	29
25...	0900	--	E.22	--	13000	99	29
25...	1000	--	E.22	--	12800	100	29
26...	0900	--	E19	1.5	13600	--	29
26...	1300	--	E8.9	--	10500	100	29
26...	1400	--	E7.9	--	10100	100	29
26...	2200	--	E2.7	5.0	6480	--	29
27...	1300	--	E.76	--	4010	100	29
NOV							
02...	1400	--	.00	10.0	9220	100	29
02...	1630	--	.00	10.0	8350	100	29
02-04	--	1.3	--	--	13100	100	--
03...	0900	--	E.34	8.0	5890	--	29
03...	1300	--	E1.4	14.0	15100	100	29
03...	1310	--	E1.4	14.0	14800	100	29
03...	1400	--	1.3	10.5	8410	100	--
03...	1500	--	E1.1	14.0	22600	--	29
03...	1800	--	E1.3	10.0	24400	--	29
03...	2300	--	E1.2	6.5	28800	--	29
04...	0200	--	E1.4	5.0	25200	--	29
04...	0500	--	E1.0	3.5	23100	100	29
04...	1300	--	E3.5	12.0	17700	100	29
04...	2230	--	E3.2	5.0	13500	--	29
05...	0830	--	E.34	2.5	13100	92	29
05...	1330	--	E.34	14.0	11700	100	--
16...	--	.47	--	--	5480	100	--
16...	0700	--	E.62	2.0	5870	100	29
16...	0715	--	E.62	2.0	5740	100	29
16...	1100	--	E.41	3.0	5800	100	29
16...	1400	--	E.34	6.0	5790	100	29

* Mean daily streamflow for composite period.

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW (CFS) (00060)*	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
NOV							
16...	1500	--	E.34	6.0	5730	100	29
16...	1600	--	E.48	3.0	5720	100	29
25...	--	46	--	--	55700	98	--
25...	0715	--	E3.7	3.0	73800	99	29
25...	0730	--	E3.7	3.0	73400	96	29
25...	0810	--	E49	5.0	50900	--	29
25...	1300	--	E50	5.0	59200	99	29
25...	1400	--	E50	6.0	59000	98	29
25...	1700	--	E50	--	13200	75	29
25...	1900	--	E98	5.0	60900	96	29
25...	2000	--	E98	5.0	62200	96	29
DEC							
19...	1530	--	E.91	.0	9930	100	29
19-26	--	1.0	--	--	7770	100	--
20...	0700	--	E1.2	.0	11200	97	29
21...	0700	--	E1.0	.0	12000	95	29
22...	0800	--	E1.4	.0	6370	100	29
23...	0800	--	E1.3	.0	6350	100	29
26...	0800	--	E.50	.0	6350	100	29
JAN							
04...	1450	--	E.50	.0	4110	100	--
12...	0800	--	E9.4	.0	1060	99	29
12...	1700	--	E9.4	.0	1140	99	29
12-21	--	108	--	--	4180	99	--
13...	0800	--	E9.4	.0	975	100	29
13...	1700	--	E16	1.0	990	100	29
14...	0900	--	E4.5	.0	995	100	29
14...	1700	--	E4.5	.0	1000	100	29
15...	0800	--	E2.0	.0	975	100	29
15...	1700	--	E16	.0	963	100	29
16...	0800	--	E16	.0	977	100	29
16...	1700	--	E49	2.0	1030	100	29
17...	0800	--	E49	2.0	4110	100	29
17...	1700	--	E98	.0	3870	99	29
18...	0800	--	E36	.0	8480	98	29
18...	1430	--	E408	.0	8130	99	29
19...	0800	--	E464	.0	5430	91	29
19...	0805	--	E1100	--	15000	61	40
19...	1352	--	253	.5	10900	77	--
19...	1700	--	E64	.0	5710	90	29

* Mean daily streamflow for composite period.

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
JAN						
20...	0800	E49	.0	4990	97	29
20...	1800	E138	.0	4850	99	29
21...	0800	E4.5	.0	4710	98	29
21...	1800	E138	.0	4070	98	29
23...	1500	.01	--	2150	100	40
FEB						
13...	1445	E93	3.5	13600	87	29
13...	1750	E132	--	21400	94	40
13...	2030	E510	--	27600	81	40
14...	0925	E195	.5	12900	88	29
14...	1330	E290	3.0	15100	86	29
14...	1700	E370	3.0	39400	66	29
14...	1715	E388	3.0	38200	67	--
14...	2200	E1020	1.5	27300	72	29
15...	0300	E1630	--	11000	79	40
15...	0330	E2780	1.0	28800	81	29
15...	0945	E438	1.0	25300	64	29
15...	1345	E290	2.0	25600	68	29
15...	1845	E670	2.0	48200	62	29
15...	2145	E865	2.0	33400	67	29
15...	2345	E1380	1.5	28100	75	29
16...	0230	E3240	1.0	19800	91	29
16...	0630	E1120	.0	18900	86	29
16...	1000	E593	1.0	25500	75	29
16...	1430	E420	--	41800	54	29
16...	1800	E615	2.5	48000	59	29
16...	2200	E1120	2.0	29500	75	29
17...	0145	E2300	1.5	20700	88	29
17...	1000	E392	1.0	39200	60	29
17...	1400	E273	3.0	30900	67	29
17...	1800	E388	4.0	37600	64	29
17...	2000	E592	3.0	48000	58	29
17...	2330	E865	3.0	38400	67	29
18...	0130	E852	2.0	42800	64	29
18...	0330	E588	1.0	46500	63	29
18...	1200	E145	2.0	28200	66	29
18...	1800	E158	4.0	35400	60	29
19...	1200	E97	2.5	29300	70	29
19...	1600	E97	2.5	30000	71	29
19...	2030	E190	2.5	58800	50	29

09367680 CHACO WASH AT CHACO CANYON NATIONAL MONUMENT, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
FEB						
20...	0130	E330	1.5	59900	48	29
20...	0330	E272	1.5	65900	45	29
20...	0900	E190	1.5	42600	58	29
20...	1615	E97	3.5	32500	64	29
20...	1815	E105	3.5	32700	64	29
20...	2215	E170	3.5	46000	55	29
21...	0001	E182	2.5	52500	47	29
21...	0645	E119	1.5	38800	59	29
21...	1645	E81	2.5	32000	59	29
21...	1815	E75	2.5	36500	53	29
22...	1215	E52	.5	30800	61	29
22...	1615	E55	1.5	35900	59	29
22...	1815	E55	1.5	33900	61	29
22...	2030	E49	2.0	39800	57	29
23...	0145	E75	1.5	50500	47	29
23...	1130	E49	.5	32300	55	29
23...	1630	E49	1.5	40600	54	29
23...	1730	E63	1.0	38000	65	29
23...	2130	E68	1.0	35800	55	29
24...	0245	E134	.5	29700	65	29
24...	0715	E59	.5	18100	91	29
25...	1545	E4.0	3.5	8770	98	29
26...	1000	E5.5	1.0	13400	99	29
27...	1500	E27	4.0	24800	84	29
28...	1630	E12	3.0	10500	100	29
MAR						
01...	1130	E25	3.0	24200	82	29
02...	1230	E14	4.5	17100	88	29
03...	1315	E6.5	6.0	11700	97	29
04...	0800	E4.5	.5	6600	100	29
05...	1300	E.00	1.0	4100	100	29
07...	1435	17	4.0	44300	83	--
07...	1545	E29	8.0	46100	83	--
07...	1845	E44	7.5	42500	79	29
08...	0745	E117	4.0	75200	65	--
08...	1145	E81	5.0	65800	59	29
08...	1645	E64	9.0	41900	75	29
09...	0215	E155	6.5	81400	55	--
09...	0245	E187	6.0	69800	68	29
09...	0300	E198	5.5	69000	68	29
MAR						
09...	0315	E203	5.5	74200	64	--
09...	0345	E198	5.5	62400	73	29
09...	0400	E203	5.5	65500	69	29
09...	0900	E125	4.5	62600	66	--
09...	1100	E106	4.5	50900	71	29
09...	1445	E81	7.0	36700	79	29
10...	0930	E71	.5	41300	65	--
10...	1315	E52	4.5	38200	67	29
10...	1715	E42	6.0	30400	78	29
11...	0830	E19	.5	22300	81	29
12...	1300	E2.5	12.0	11400	100	29
12...	1730	E15	11.2	21600	93	--
12...	2015	E13	13.0	19900	91	29
13...	1345	E2.8	13.0	12700	100	29
13...	1745	E13	12.0	25300	93	29
14...	0830	E3.2	3.0	15000	100	29
15...	1430	E3.0	13.5	14500	100	29
15...	1830	E9.4	11.0	20000	94	29
16...	1430	E13	13.0	26800	90	29
17...	1200	E7.4	--	22600	94	29
MAY						
26...	1250	E21	12.0	15500	96	--
26...	1630	E20	16.0	12900	94	--
27...	1015	E1.4	14.5	4480	99	--
JUN						
01...	2230	E101	--	107000	92	40
02...	0100	E1330	--	39000	81	40
02...	1215	E160	9.0	20800	92	--
JUL						
01...	2030	E101	--	58500	97	40
17...	2330	E65	--	71800	90	40

09367682 GALLO WASH NEAR CHACO CANYON NATIONAL MONUMENT, NM

LOCATION.--Lat 36°02'06", long 107°53'25", in SE¼NW¼SW¼ sec.22, T.21 N., R.10W., San Juan County, Hydrologic Unit 14080106, in Chaco Canyon National Monument on left bank, 1.1 mi (1.8 km) northeast of Chaco Canyon National Mounument Visitors Center, and 3.2 mi (5.1 km) upstream from mouth.

DRAINAGE AREA.--36.2 mi² (93.8 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,220 ft (1,896 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 254 ft³/s (7.19 m³/s) Jan. 18, 1979, gage height, 3.30 ft (1.006 m), from rating curve extended above 15 ft³/s (0.42 m³/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 254 ft³/s (7.19 m³/s) Jan. 18, gage height, 3.30 ft (1.006 m), from rating curve extended above 15 ft³/s (0.42 m³/s) on basis of slope-area measurement of peak flow; no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.00	3.3	.00	.00
3	.00	.00	.00	.00	.00	.00	.00	.00	.00	.20	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.00	.00	.16	12	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	1.2	5.4	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.10	8.3	.10	.00	.00	.00	.00	.16	.00
15	.00	.00	.00	.50	6.5	.04	.00	.00	.00	.00	.56	.00
16	.00	.00	.00	10	2.6	.00	.00	.00	.00	.00	.04	.00
17	.00	.00	.00	90	1.9	.05	.00	.00	.00	.00	4.4	.00
18	.00	.00	.00	120	.03	.00	.00	.00	.00	.00	.67	.00
19	.00	.00	.00	60	.00	.02	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	16	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	.00	2.3	.00	.04	.00	.00	.00	.00	.00	.00
22	.00	.00	.00	.50	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	.00	.00	.00	300.76	36.73	.25	.00	.00	.00	3.50	5.83	.00
MEAN	.000	.000	.000	9.70	1.31	.008	.000	.000	.000	.11	.19	.000
MAX	.00	.00	.00	120	12	.10	.00	.00	.00	3.3	4.4	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	.00	.00	.00	597	73	.5	.00	.00	.00	6.9	12	.00

CAL YR 1978 TOTAL 0.00 MEAN .000 MAX .00 MIN .00 AC-FT .00

WTR YR 1979 TOTAL 347.07 MEAN .95 MAX 120 MIN .00 AC-FT 688

Note: No gage-height record January 13-22, February 17 to March 5.

09367682 GALLO WASH NEAR CHACO CANYON NATIONAL MONUMENT, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--January 1979 to September 1979.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
JAN											
18...	0100	E18	545	8.0	--	--	--	--	--	--	--
18...	0115	E40	775	8.0	--	--	--	--	--	--	--
18...	0145	E80	800	8.0	--	--	--	--	--	--	--
18...	0200	E100	255	8.0	--	--	--	--	--	--	--
FEB											
08...	1230	E18	285	7.8	--	--	--	--	--	--	--
08...	1300	E40	394	7.7	--	--	--	--	--	--	--
12...	1600	12	310	8.3	9.0	.0	11.6	47	0	16	1.7
16...	1710	E2.6	255	7.1	--	4.0	--	--	--	--	--
AUG											
17...	1945	6.8	370	7.5	--	--	--	--	--	--	--
17...	2015	E40	331	7.8	--	--	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
JAN											
18...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--
FEB											
08...	--	--	--	--	--	--	--	--	--	--	--
08...	--	--	--	--	--	--	--	--	--	--	--
12...	43	2.7	6.6	92	0	75	56	7.8	.2	8.3	201
16...	--	--	--	--	--	--	--	--	--	--	--
AUG											
17...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	SAMPLE SOURCE (72005)
JAN										
18...	--	--	--	--	--	--	--	--	40	40
18...	--	--	--	--	--	--	--	--	32	40
18...	--	--	--	--	--	--	--	--	37	40
18...	--	--	--	--	--	--	--	--	32	40
FEB										
08...	--	--	--	--	--	--	--	--	14	40
08...	--	--	--	--	--	--	--	--	27	40
12...	185	.62	.11	1.1	1.8	.630	80	40	--	--
16...	--	--	--	--	--	--	--	--	--	--
AUG										
17...	--	--	--	--	--	--	--	--	36	40
17...	--	--	--	--	--	--	--	--	32	40

09367682 GALLO WASH NEAR CHACO CANYON NATIONAL MONUMENT, NM

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SAMPLE SOURCE (72005)
JAN										
18...	0100	4	--	--	--	--	--	.2	1	40
18...	0115	4	--	--	--	--	--	.1	2	40
18...	0145	4	--	--	--	--	--	.2	1	40
FEB										
08...	1230	8	--	--	--	--	--	.1	1	40
08...	1300	13	--	--	--	--	--	.1	1	40
16...	1710	4	400	240	27000	0	500	--	--	--
AUG										
17...	1945	14	--	--	--	--	--	.3	1	40
17...	2015	7	--	--	--	--	--	.4	1	40

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
JAN						
18...	0100	E18	--	3380	--	40
18...	0115	E40	--	1510	--	40
18...	0145	E80	--	2060	--	40
18...	0200	E100	--	2550	--	40
FEB						
08...	1230	E18	--	3180	--	40
08...	1300	E40	--	4230	--	40
12...	1600	12	.0	1560	--	--
16...	1710	E2.6	4.0	1980	100	--
AUG						
17...	1945	6.8	--	2810	--	40
17...	2015	E40	--	2440	--	40

09367685 AH-SHI-SLE-PAH WASH NEAR KIMBETO, NM

LOCATION (REVISED).--Lat 36°09'13", long 107°56'47", in NW¼SW¼ sec.7, T.22 N., R.10 W., San Juan County, Hydrologic Unit 14080106, on right bank 6.0 mi (9.7 km) west of Kimbeto, and 6.0 mi (9.7 km) upstream from mouth.

DRAINAGE AREA.--8.2 mi^2 (21.2 km^2).

WATER-DISCHARGE RECORD

PERIOD OF RECORD.--March 1976 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,180 ft (1,884 m) from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,170 ft^3/s (33.1 m^3/s) July 20, 1977, gage height, 4.46 ft (1.359 m), from rating curve extended above 6.0 ft^3/s (0.17 m^3/s) on basis of step-back water analysis; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 300 ft^3/s (8.5 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Nov. 3	0530	460	13.0	2.55	0.777	Feb. 14	1730	307	8.69	2.05	0.625
Jan. 17	Unknown	*528	15.0	2.75	0.838	Aug. 17	1600	355	10.1	2.20	0.671

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	25	.00	.00
2	.00	11	9.0	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	65	1.4	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	.44	2.8	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	8.2	.00	.00	.00	.00	.00	1.8	.00	.00	.00
6	.00	.00	1.1	.00	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.50	.00	.10	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.10	.00	2.1	.00	.00	.00	.04	.00	.00	.00
9	.00	.00	.00	.00	3.3	1.2	.00	.30	.00	.00	.00	.00
10	.00	.00	.00	.00	10	.40	.00	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	20	.50	.00	.00	.00	.00	.00	.00
12	.00	8.3	.00	.00	30	.60	4.5	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	52	.60	.75	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	67	.90	.00	.00	.00	.00	.00	.00
15	.00	5.3	.00	2.5	40	.80	.00	.00	.00	.00	.00	.00
16	.00	.60	.00	30	28	.60	.00	.00	.00	.00	10	.00
17	.00	.20	.00	70	12	1.6	.00	.00	.00	.00	38	.00
18	.00	.10	.00	20	.00	8.3	.00	.00	.00	.00	.00	.00
19	.00	.00	.00	2.6	.00	6.8	.00	.00	.00	.00	.00	.00
20	.00	.00	.00	2.4	.00	.00	.00	1.3	.00	.00	.00	.00
21	49	.00	.00	2.4	.00	9.6	.00	.80	.00	.00	.00	.00
22	1.0	.00	.00	1.1	.00	.00	.00	.20	.00	.00	.00	.00
23	.00	.00	.00	1.1	.00	.00	.00	.10	.00	.00	.00	.00
24	2.3	28	.00	1.3	.00	.00	.00	10	.00	.00	.00	.00
25	.00	30	.00	.00	.00	.00	.00	4.4	.00	.00	.00	.00
26	.00	.00	.00	.00	.00	.00	.00	5.8	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	9.0	.00	.00	.00	.00
28	.00	.00	2.8	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	2.1	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.50	.00	---	.00	.00	.00	.02	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	52.30	148.94	28.50	133.40	264.50	31.90	5.25	31.90	1.86	25.00	48.00	.00
MEAN	1.69	4.96	.92	4.30	9.45	1.03	.18	1.03	.062	.81	1.55	.000
MAX	49	65	9.0	70	67	9.6	4.5	10	1.8	25	38	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	104	295	57	265	525	63	10	63	3.7	50	95	.00

CAL YR 1978 TOTAL 549.08 MEAN 1.50 MAX 106 MIN .00 AC-FT 1090
WTR YR 1979 TOTAL 771.55 MEAN 2.11 MAX 70 MIN .00 AC-FT 1530

09367685 AH-SHI-SLE-PAH WASH NEAR KIMBETO, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 26 indicates by automatic pump and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT										
21...	1500	E140	520	7.9	--	--	--	--	--	--
NOV										
02...	2100	E140	540	7.3	--	--	--	--	--	--
02...	2101	E140	750	7.7	--	--	--	--	--	--
02...	2102	E140	550	7.6	--	--	--	--	--	--
03...	0400	E280	590	7.4	--	--	--	--	--	--
03...	0510	E480	610	7.3	--	--	--	--	--	--
24...	1901	E140	590	7.3	--	--	--	--	--	--
24...	1902	E140	280	7.3	--	--	--	--	--	--
JAN										
19...	1500	14	490	7.6	.5	22	0	7.3	1.0	98
FEB										
14...	1130	.35	440	7.4	2.0	--	--	--	--	--
14...	1132	E140	425	7.8	--	--	--	--	--	--
14...	1134	E140	570	7.5	--	--	--	--	--	--
14...	1500	E280	460	7.9	--	--	--	--	--	--
MAR										
09...	1220	E.20	900	7.5	--	--	--	--	--	--
JUL										
01...	1445	E49	1000	7.4	--	--	--	--	--	--
01...	1450	E141	1240	7.6	--	--	--	--	--	--
AUG										
16...	1900	E48	700	7.4	--	--	--	--	--	--
16...	2000	E48	670	7.3	--	--	--	--	--	--
17...	1500	E140	600	7.6	--	--	--	--	--	--
17...	1501	E140	720	7.6	--	--	--	--	--	--
17...	1502	E140	700	7.3	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT									
21...	--	--	286*	235	--	--	--	--	--
NOV									
02...	--	--	282*	231	--	--	--	--	--
02...	--	--	272*	223	--	--	--	--	--
02...	--	--	318*	261	--	--	--	--	--
03...	--	--	368*	302	--	--	--	--	--
03...	--	--	232*	190	--	--	--	--	--
24...	--	--	112	92	--	--	--	--	--
24...	--	--	112	92	--	--	--	--	--
JAN									
19...	9.0	3.0	--	53	150	7.1	.3	11	310
FEB									
14...	--	--	88	72	--	--	--	--	--
14...	--	--	124	102	--	--	--	--	--
14...	--	--	92	75	--	--	--	--	--
14...	--	--	136	112	--	--	--	--	--
MAR									
09...	--	--	148	121	--	--	--	--	--
JUL									
01...	--	--	--	--	--	--	--	--	--
01...	--	--	--	--	--	--	--	--	--
AUG									
16...	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--

* Determined on well mixed water-suspended sediment sample.

09367685 AH-SHI-SLE-PAH WASH NEAR KIMBETO, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
OCT									
21...	--	--	--	--	--	--	--	--	40
NOV									
02...	--	--	--	--	--	--	--	--	40
02...	--	--	--	--	--	--	--	--	40
02...	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	40
24...	--	--	--	--	--	--	--	--	40
24...	--	--	--	--	--	--	--	--	40
JAN									
19...	4.4	.59	3.7	8.7	.580	90	450	--	--
FEB									
14...	--	--	--	--	--	30	270	0	--
14...	--	--	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	--	--	40
MAR									
09...	--	--	--	--	--	30	140	0	--
JUL									
01...	--	--	--	--	--	--	--	--	40
01...	--	--	--	--	--	--	--	--	26
AUG									
16...	--	--	--	--	--	--	--	--	26
16...	--	--	--	--	--	--	--	--	26
17...	--	--	--	--	--	--	--	--	40
17...	--	--	--	--	--	--	--	--	40
17...	--	--	--	--	--	--	--	--	40

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)
OCT								
21...	1500	46	--	3400	--	270	--	--
NOV								
02...	2100	22	--	6500	--	260	--	--
02...	2101	25	--	4000	--	240	--	--
02...	2102	42	--	8300	--	370	--	--
03...	0400	23	--	3500	--	240	--	--
03...	0510	28	--	4500	--	210	--	--
24...	1901	14	--	600	--	140	--	--
24...	1902	9	--	1800	--	130	--	--
JAN								
19...	1500	--	--	400	0	--	90	0
FEB								
14...	1130	4	1	600	--	80	30	--
14...	1132	20	--	2400	--	180	--	--
14...	1134	10	--	800	--	100	--	--
14...	1500	20	--	3200	--	190	--	--
MAR								
09...	1220	12	1	900	0	130	30	--
JUL								
01...	1445	140	--	8000	--	320	--	--
01...	1450	46	--	4500	--	310	--	--
AUG								
16...	1900	29	--	4400	--	200	--	--
16...	2000	29	--	4400	--	210	--	--
17...	1500	29	--	5600	--	260	--	--
17...	1501	10	--	7200	--	360	--	--
17...	1502	38	--	--	--	--	--	--

09367685 AH-SHI-SLE-PAH WASH NEAR KIMBETO, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
OCT								
21...	--	380000	--	800	--	12000	--	40
NOV								
02...	--	440000	--	800	--	27000	--	40
02...	--	340000	--	600	--	19000	--	40
02...	--	540000	--	1200	--	42000	--	40
03...	--	390000	--	800	--	10000	--	40
03...	--	340000	--	700	--	15000	--	40
24...	--	89000	--	--	--	1300	--	40
24...	--	120000	--	100	--	3400	--	40
JAN								
19...	1	--	450	0	6	--	--	--
FEB								
14...	--	69000	270	4	0	1400	0	--
14...	--	240000	--	500	--	7500	--	40
14...	--	96000	--	200	--	1700	--	40
14...	--	250000	--	600	--	11000	--	40
MAR								
09...	--	170000	140	200	0	2000	0	--
JUL								
01...	--	410000	--	1400	--	54000	--	40
01...	--	390000	--	1100	--	26000	--	26
AUG								
16...	--	160000	--	600	--	14000	--	26
16...	--	300000	--	700	--	9600	--	26
17...	--	300000	--	700	--	11000	--	40
17...	--	340000	--	900	--	28000	--	40
17...	--	--	--	--	--	--	--	40

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
OCT						
21...	1500	E140	--	47500	81	40
21...	1501	E140	--	78100	53	40
21...	1502	E140	--	30300	100	40
NOV						
02...	2100	E140	--	57700	57	40
02...	2101	E140	--	44700	57	40
02...	2102	E140	--	130000	27	40
03...	0400	E280	--	46600	96	40
03...	0510	E480	--	51700	57	40
24...	1901	E140	--	7450	94	40
24...	1902	E140	--	11100	75	40
JAN						
19...	1500	14	.5	6750	86	--
FEB						
14...	1130	35	2.0	6000	79	--
14...	1132	E140	--	25700	78	40
14...	1133	E128	--	22000	55	40
14...	1134	E140	--	9900	76	40
14...	1500	E280	--	39000	61	40
MAR						
09...	1220	E.20	--	11800	100	--
JUL						
01...	1445	E49	--	147000	34	40
01...	1450	E141	--	53400	82	26
AUG						
16...	2000	E48	--	35500	92	26
17...	1500	E140	--	41000	84	40
17...	1501	E140	--	57300	69	40
17...	1502	E140	--	123000	34	40

09367710 DE-NA-ZIN WASH NEAR BISTI TRADING POST, NM

LOCATION.--Lat 36°13'51", long 108°11'57", in NE¼NW¼ Sec. 14, T.23 N., R.13 W., San Juan County, Hydrologic Unit 14080106, on right bank 400 ft (122 m) upstream from county road, 0.8 mi (1.3 km) downstream from Alamo Wash, 4.5 mi (7.2 km) southeast of Bisti Trading Post, and at mile 7.3 (11.7 km).
DRAINAGE AREA.--184 mi² (477 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--November 1975 to current year.
GAGE.--Water-stage recorder. Altitude of gage is 5,840 ft (1,780 m), from topographic map.
REMARKS.--Water-discharge records poor.
EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,010 ft³/s (56.9 m³/s), revised, May 7, 1978, gage height, 3.20 ft (0.975 m); maximum gage height, 4.10 ft (1.250 m) Aug. 16, 1979; no flow most of time.
EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*).

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 21	2000	439	12.4	1.87	0.570
Oct. 24	2130	243	6.88	1.74	0.530
Nov. 3	0800	1,210	34.3	2.35	0.716
Nov. 12	1530	210	5.95	1.70	0.518
Nov. 15	1430	405	11.5	1.85	0.564
Nov. 24	2300	775	21.9	2.05	0.625
Jan. 6	1300	210	5.95	1.70	0.518
Jan. 17	1500	1,550	43.9	2.60	0.792
Feb. 11	1930	775	21.9	1.86	0.567
Feb. 14	1800	760	21.5	1.85	0.564
Mar. 18	1930	790	22.4	1.96	0.597
Mar. 21	1130	1,100	31.2	2.14	0.652
July 3	2330	156	4.42	1.65	0.503
July 18	2130	595	16.9	1.95	0.594
Aug. 14	1200	1,070	30.3	2.66	0.811
Aug. 16	0600	*1,920	54.4	4.10	1.250
Aug. 17	2000	1,070	30.3	3.05	0.930

No flow most of time.

REVISIONS.--The maximum discharge for the water year 1978 has been revised to 2,010 ft³/s (56.9 m³/s) May 7, 1978, gage height, 3.20 ft (0.975 m); revised daily discharges, in cubic feet per second, for the high water period in May 1978, are given below. These figures supersede those published in the report for 1978.

May 6 657
May 7 413

Month	Total	Mean	Max	Min	Ac-ft
May 1978	1,273.25	41.1	657	0	2,530
WTR YR 1978	1,855.07	5.08	657	0	3,680

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	1.5	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	2.2	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	139	2.2	.00	.00	.00	.00	.00	.00	8.6	.00	.00
4	.00	3.6	1.7	.00	.00	.00	.00	.00	.00	92	.00	.00
5	.00	2.5	1.5	.29	.00	.00	.00	.00	.00	30	.00	.00
6	.00	1.5	1.1	28	.00	.00	.00	.00	.00	10	.00	.00
7	.00	.32	.32	4.9	2.0	.00	.00	.00	.00	5.5	.00	.00
8	.00	.24	.20	3.0	1.5	.00	.00	.00	.00	2.0	.00	.00
9	.00	.45	.10	2.3	1.5	11	.00	.00	.00	.00	5.1	.00
10	.00	.00	.04	.72	25	7.4	.00	.00	.00	.00	16	.00
11	.00	.08	.00	.93	110	12	.00	.00	.00	.00	7.6	.00
12	.00	19	.00	2.5	84	9.3	.00	.00	.00	.00	4.9	.00
13	.00	4.2	.00	5.0	209	6.2	3.6	.00	.00	.00	4.1	.00
14	.00	2.4	.00	7.0	149	5.2	6.7	.00	.00	.02	101	.00
15	.00	65	.00	64	129	6.7	.00	.00	.00	.10	226	.00
16	.00	20	.00	316	53	5.7	.00	.00	.00	.55	365	.00
17	.00	2.7	.00	263	20	6.4	.00	.00	.00	.28	449	.00
18	.00	1.7	.00	61	10	82	.00	.00	.00	32	136	.00
19	.00	.72	.00	19	5.0	80	.00	.00	.00	32	14	.00
20	.00	.79	.00	13	2.5	66	.00	.00	.00	5.9	6.8	.00
21	42	1.1	.00	9.8	.50	442	.00	.00	.00	4.7	.00	.00
22	10	1.2	.00	.00	.00	3.5	.00	.00	.00	6.2	.00	.00
23	25	.32	.00	.00	.00	.00	.00	.00	.00	3.6	.00	.00
24	36	82	.00	.00	.00	.00	.00	.00	.00	3.0	.00	.00
25	57	42	.00	.00	.00	.00	.00	7.0	.00	1.5	.00	.00
26	7.0	3.6	.00	.00	.00	.00	.00	3.2	.00	.79	.00	.00
27	2.0	2.2	.00	.00	.00	.00	.00	.50	.00	.09	.00	.00
28	1.5	2.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.32	2.0	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.03	.93	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.08	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	180.93	401.55	10.86	800.44	802.00	743.40	10.30	10.70	.00	238.83	1335.50	.00
MEAN	5.84	13.4	.35	25.8	28.6	24.0	.34	.35	.000	7.70	43.1	.000
MAX	57	139	2.2	316	209	442	6.7	7.0	.00	92	449	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	359	796	22	1590	1590	1470	20	21	.00	474	2650	.00

CAL YR 1978 TOTAL 2378.37 MEAN 6.52 MAX 657 MIN .00 AC-FT 4720
WTR YR 1979 TOTAL 4534.51 MEAN 12.4 MAX 449 MIN .00 AC-FT 8990

09367710 DE-NA-ZIN WASH NEAR BISTI TRADING POST, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1975 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate method of sampling; 26 indicates by automatic pump and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW (CFS) (00060)*	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
OCT												
24...	--	27	--	710	7.7	9.0	10	0	3.1	.6	130	18
26...	1110	--	E4.0	675	7.8	7.0	--	--	--	--	--	--
NOV												
15-17	--	29	--	620	7.8	--	40	0	15	.7	130	8.9
FEB												
16...	0930	--	.00	585	7.8	2.0	--	--	--	--	--	--
AUG												
16...	0540	--	E350	1370	7.7	6.0	--	--	--	--	--	--

* Mean daily streamflow for composite period.

DATE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT											
24...	2.1	--	110	150	7.2	.7	31	442	391	1.7	--
26...	--	--	--	--	--	--	--	--	--	--	--
NOV											
15-17	3.0	240	197	--	--	--	--	--	--	4.6	4.8
FEB											
16...	--	252	207	--	--	--	--	--	--	--	--
AUG											
16...	--	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	SAMPLE SOURCE (72005)
OCT											
24...	--	--	--	1.90	--	--	--	--	75	5.2	--
26...	--	--	--	--	--	--	--	--	--	--	--
NOV											
15-17	.22	1.8	6.6	1.90	.02	70	440	0	49	4.1	--
FEB											
16...	--	--	--	--	--	70	80	0	--	--	--
AUG											
16...	--	--	--	--	--	--	--	--	--	--	40

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)
OCT										
24...	--	42	3	--	--	--	--	--	--	--
NOV										
15-17	--	25	4	2000	0	150	70	1	2	90
FEB										
16...	0930	35	3	1600	100	140	70	--	--	--
AUG										
16...	0540	95	--	6000	--	190	--	--	--	--

09367710 DE-NA-ZIN WASH NEAR BISTI TRADING POST, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
OCT										
24...	--	--	--	--	--	--	--	700	0	--
NOV										
15-17	0	77	0	390	8	180000	440	200	7	6000
FEB										
16...	--	--	--	--	--	150000	80	100	2	3300
AUG										
16...	--	--	--	--	--	350000	--	1200	--	27000

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT										
24...	--	1.0	.0	--	--	--	--	--	--	--
NOV										
15-17	0	.6	.0	9	5	0	0	740	10	--
FEB										
16...	0	--	--	--	--	--	--	--	--	--
AUG										
16...	--	--	--	--	--	--	--	--	--	40

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)
OCT							
26...	1110	<8.8	510	5.6	250	5.1	230

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
OCT						
24...	1120	E18	9.5	34100	83	--
26...	1110	E4.0	7.0	14400	98	--
NOV						
15...	1345	49	2.5	20100	69	--
15...	1415	320	2.5	28400	77	--
15...	1520	120	--	31500	76	--
16...	1500	14	9.5	21600	94	--
17...	1030	2.0	2.0	19100	85	--
DEC						
24...	2300	E1.2	--	68400	83	40
FEB						
16...	0930	.00	2.0	14400	98	--

09367930 HUNTER WASH AT BISTI TRADING POST, NM

LOCATION.--Lat 36°16'37", long 108°15'12", in NW¼NW¼ sec.32, T.24 N., R.13 W., San Juan County, Hydrologic Unit 14080106, on right bank 150 ft (46 m) upstream from road crossing at Bisti Trading Post, and 35 mi (56 km) south of Farmington.

DRAINAGE AREA.--45.6 mi² (118 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,770 ft (1,759 m), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,570 ft³/s (44.5 m³/s) Aug. 19, 1976, gage height, 6.22 ft (1.896 m), from rating curve extended above 60 ft³/s (1.70 m³/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft³/s (0.57 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 21	1700	33	0.93	2.22	0.677	Feb. 10	2300	45	1.27	2.10	0.640
Oct. 25	1530	90	2.55	2.30	0.701	Feb. 21	1800	45	1.27	2.10	0.640
Nov. 3	0745	205	5.81	2.85	0.869	July 21	1830	33	0.93	2.05	0.625
Nov. 14	1330	79	2.24	2.25	0.686	Aug. 7	2345	147	4.16	2.54	0.774
Nov. 24	2230	*232	6.57	2.94	0.896	Aug. 15	1700	97	2.75	2.35	0.716
Jan. 17	1500	40	1.13	2.07	0.631	Aug. 17	2330	105	2.97	2.37	0.722

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.20	.00	.00	.00	.00	.00	.00	.02	.00	.00
2	.00	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	19	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.00	5.0	.00	.42	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	2.0	.00	.74	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	1.3	.00	.88	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.10	.00	1.0	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.42	.00	.82	.00	.00	.00	.00	.00	.00	22	.00
9	.00	.88	.00	.62	.28	.00	.00	.00	.00	.00	5.0	.00
10	.00	1.9	.00	.43	5.3	.00	.00	.00	.00	.00	.00	.00
11	.00	2.3	.00	.52	16	.00	.00	.00	.00	.00	.00	.00
12	.00	4.8	.00	.34	7.8	.00	.00	.00	.00	.00	.00	.00
13	.00	6.4	.00	.74	9.9	.00	.31	.00	.00	.00	.00	.00
14	.00	8.2	.00	.88	12	.03	.00	.00	.00	.00	.00	.00
15	.00	23	.00	16	5.0	.00	.00	.00	.00	.00	1.8	.00
16	.00	9.2	.00	30	2.8	.00	.00	.00	.00	.00	6.5	.00
17	.00	2.9	.00	25	1.2	.00	.00	.00	.00	.00	18	.00
18	.00	2.5	17	10	.62	.00	.00	.00	.00	.00	10	.00
19	.00	2.5	10	2.0	.42	.64	.00	.00	.00	.00	.00	.00
20	.00	2.8	5.2	.88	.74	.61	.00	.00	.00	.00	.00	.00
21	9.0	3.2	2.5	.76	.42	16	.00	.00	.00	3.1	.00	.00
22	.05	1.9	1.0	.34	.10	4.0	.00	.00	.00	.34	.00	.00
23	.00	1.0	.20	.00	.00	1.9	.00	.00	.00	.00	.00	.00
24	7.3	27	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	6.8	16	.00	.00	.00	.00	.00	.79	.00	.00	.00	.00
26	2.5	10	.00	.00	.00	.00	.00	.52	.00	.00	.00	.00
27	.42	5.0	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.06	2.1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	1.0	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.40	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	26.13	162.80	36.31	92.37	62.58	23.18	.31	1.31	.00	3.46	63.30	.00
MEAN	.84	5.43	1.17	2.98	2.24	.75	.010	.042	.000	.11	2.04	.000
MAX	9.0	27	17	30	16	16	.31	.79	.00	3.1	22	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	52	323	72	183	124	46	.6	2.6	.00	6.9	126	.00

CAL YR 1978 TOTAL 520.01 MEAN 1.42 MAX 168 MIN .00 AC-FT 1030
WTR YR 1979 TOTAL 471.75 MEAN 1.29 MAX 30 MIN .00 AC-FT 936

09367930 HUNTER WASH AT BISTI TRADING POST, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD--Water years 1975 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate sampling method; 29 indicates dip or grab sample and 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW (CFS) (00060)*	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	BICARBONATE (MG/L AS HCO3) (00440)	ALKALINITY (MG/L AS CACO3) (00410)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
OCT										
24...	1235	--	8.7	825	7.7	9.0	282	231	--	--
26...	0945	--	6.7	940	7.8	4.0	190	156	--	--
NOV										
03...	0300	--	E155	1030	7.3	--	202	166	--	--
03...	0310	--	E285	530	7.8	--	322	264	--	--
15...	1200	--	E155	540	8.2	--	220	180	--	--
15-16	--	16	--	1100	7.4	3.5	184	151	9.6	8.2
17...	0930	--	29	830	7.5	1.0	246	202	--	--
FEB										
16...	0830	--	.00	1335	7.2	9.0	155	127	--	--

* Mean daily streamflow for composite period.

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	SAMPLE SOURCE (72005)
OCT										
24...	--	--	--	--	--	150	10	--	--	--
26...	--	--	--	--	--	--	--	--	--	--
NOV										
03...	--	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	--	40
15...	--	--	--	--	--	--	--	--	--	40
15-16	.62	9.3	20	2.80	.02	10	0	100	8.5	--
17...	--	--	--	--	--	--	--	--	--	--
FEB										
16...	--	--	--	--	--	10	0	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
OCT										
24...	1235	49	2	2800	0	270	--	--	--	--
26...	0945	27	--	1800	--	190	--	--	--	--
NOV										
03...	0300	37	--	--	--	--	--	--	--	--
03...	0310	39	--	2800	--	230	--	--	--	--
15...	1200	18	--	2200	--	120	--	--	--	--
15-16	--	18	1	2400	0	210	2	0	100	0
17...	0930	30	--	1600	--	190	--	--	--	--
FEB										
16...	0830	24	1	1200	0	260	--	--	--	--

09367930 HUNTER WASH AT BISTI TRADING POST, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT										
24...	--	--	--	--	400000	150	700	3	10000	10
26...	--	--	--	--	250000	--	400	--	4700	--
NOV										
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	360000	--	700	--	13000	--
15...	--	--	--	--	160000	--	400	--	9800	--
15-16	120	0	1000	7	320000	10	250	0	11000	0
17...	--	--	--	--	230000	--	400	--	3800	--
FEB										
16...	--	--	--	--	270000	10	400	0	4300	0

DATE	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT									
24...	--	--	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--	--	--
NOV									
03...	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	40
15...	--	--	--	--	--	--	--	--	40
15-16	1.1	.0	15	8	0	0	1400	10	--
17...	--	--	--	--	--	--	--	--	--
FEB									
16...	--	--	--	--	--	--	--	--	--

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW (CFS) (00060)*	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
OCT							
24...	1235	--	8.7	9.0	46100	100	--
26...	0945	--	6.7	4.0	21500	100	--
NOV							
03...	0300	--	E155	--	18700	100	40
03...	0310	--	E285	--	41300	90	40
15...	1200	--	E155	--	31200	72	40
15-16	--	16	--	3.5	41400	81	--
17...	0930	--	29	1.0	27500	99	--
FEB							
16...	0830	--	.00	9.0	20000	100	--

* Mean daily streamflow for composite period.

09367934 TEEC-NI-DI-TSO WASH NEAR BURNHAM TRADING POST, NM

LOCATION.--Lat 36°18'26", long 108°27'22", San Juan County, Hydrologic Unit 14080106, in Navajo Indian Reservation, on right bank 4.9 mi (7.9 km) southeast of Burnham Trading Post, and 6.5 mi (10.5 km) upstream from mouth.

DRAINAGE AREA.--7.2 mi^2 (18.6 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,500 ft (1,874 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 268 ft^3/s (7.590 m^3/s), Sept. 24, 1978, gage height, 3.07 ft (0.936 m), on basis of step-backwater analysis; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 44 ft^3/s (1.25 m^3/s) Jan. 6, gage height, 2.06 ft (0.628 m); no flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	.66	.00	.00	.00
3	.00	1.4	.00	.00	.00	.00	.00	.00	.06	.00	.00	.00
4	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	.70	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	2.7	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.04	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.02	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	.58	.00	.00	.00	.00	.08	.00	.00	.00	.00	.00
13	.00	.05	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.61	.00	1.4	.00	.00	.00	.00	.00	.00	.02	.00
16	.00	.13	.00	18	.00	.00	.00	.00	.00	.00	.18	.00
17	.00	.00	.00	14	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	5.8	5.2	.00	.00	.00	.00	.00	.00	.50	.00
19	.00	.00	6.4	1.3	.00	.00	.00	.00	.00	.00	.01	.00
20	.00	.00	3.5	.38	.00	.00	.00	.00	.00	.00	.00	.09
21	.22	.00	1.7	.00	.00	.24	.00	.00	.00	.00	.00	.00
22	.00	.00	1.2	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.09	.00	.13	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	2.3	1.6	.00	.00	.00	.00	.00	.59	.00	.00	.00	.00
25	.00	3.5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.25	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	2.61	8.12	18.73	43.72	.00	.24	.11	.59	.72	.00	.71	.09
MEAN	.084	.27	.60	1.41	.000	.008	.004	.019	.024	.000	.023	.003
MAX	2.3	3.5	6.4	18	.00	.24	.08	.59	.66	.00	.50	.09
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	5.2	16	37	87	.00	.5	.2	1.2	1.4	.00	1.4	.2

CAL YR 1978 TOTAL 51.49 MEAN .14 MAX 6.4 MIN .00 AC-FT 102
WTR YR 1979 TOTAL 75.64 MEAN .21 MAX 18 MIN .00 AC-FT 150

NOTE: No gage-height record March 10 to September 30.

09367934 TEEC-NI-DI-TSO WASH NEAR BURNHAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
JAN											
16...	1515	31	375	9.3	6.0	.0	11.7	10	0	3.1	.5

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
JAN											
16...	74	10	1.4	270	22	258	70	4.3	.3	--	250

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUS-PENDED TOTAL (MG/L AS C) (00689)
JAN										
16...	309	1.4	.06	2.0	3.5	1.50	10	190	5.4	20

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JAN			
16...	1515	K71	20000

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)
JAN				
16...	1515	31	.0	12700

09367936 BURNHAM WASH NEAR BURNHAM, NM

LOCATION.—Lat 36°21'11", long 108°27'16", San Juan County, Hydrologic Unit 14080106, in Navajo Indian Reservation, on left bank 3.0 mi (4.8 km) upstream from Brimhall Wash, 3.2 mi (5.1 km) east of Burnham Trading Post, and 32 mi (51.5 km) southeast of Shiprock.

DRAINAGE AREA.—8.6 mi² (22.3 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-Stage recorder and concrete control. Altitude of gage is 5,480 ft (1,670 m), from topographic map.

REMARKS.—Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 518 ft³/s (14.7 m³/s) Sept. 7, 1978, gage height, 4.20 ft (1.280 m) from rating curve extended above 20 ft³/s (0.57 m³/s) on basis of slope-area measurement of peak flow; no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge		Gage height		Date	Time	Discharge		Gage height	
		(ft³/s)	(m³/s)	(ft)	(m)			(ft³/s)	(m³/s)	(ft)	(m)
Oct. 21	1700	141	3.99	2.55	0.777	Nov. 12	0745	136	3.85	2.83	0.863
Nov. 3	0300	*185	5.24	2.94	0.896	Nov. 24	2145	152	4.30	2.65	0.808

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	.00	.00	.00	.00	.00	1.0	.00	.00	.00
3	.00	12	.00	.00	.00	.00	.00	.00	.09	.00	.00	.00
4	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
5	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.00	.00	.00	1.4	.00	.00	.00	.00	.00	.00	.00	.00
7	.00	.00	.00	1.2	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.00	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00
10	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00	.00	.00
11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
12	.00	7.3	.00	.00	.00	.00	.12	.00	.00	.00	.00	.00
13	.00	.10	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	1.3	.00	2.1	.00	.00	.00	.00	.00	.00	.03	.00
16	.00	.05	.00	24	.00	.00	.00	.00	.00	.00	.28	.00
17	.00	.00	.00	19	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	7.2	.16	.00	.00	.00	.00	.00	.00	.76	.00
19	.00	.00	2.3	.00	.00	.00	.00	.00	.00	.00	.01	.00
20	.00	.00	.78	.00	.00	.00	.00	.00	.00	.00	.00	.14
21	9.3	.00	.00	.00	.00	.37	.00	.00	.00	.00	.00	.02
22	.07	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	1.2	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	2.1	14	.00	.00	.00	.00	.00	.90	.00	.00	.00	.00
25	.00	11	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
26	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	.64	.00	---	.00	.00	.00	.00	.00	.00	.00
30	.00	.00	.42	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	12.67	45.78	11.34	47.88	.00	.37	.16	.90	1.09	.00	1.08	.16
MEAN	.41	1.53	.37	1.54	.000	.012	.005	.029	.036	.000	.035	.005
MAX	9.3	14	7.2	24	.00	.37	.12	.90	1.0	.00	.76	.14
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	25	91	22	95	.00	.7	.3	1.8	2.2	.00	2.1	.3

CAL YR 1978 TOTAL 290.80 MEAN .80 MAX 71 MIN .00 AC-FT 577
WTR YR 1979 TOTAL 121.43 MEAN .33 MAX 24 MIN .00 AC-FT 241

09367936 BURNHAM WASH NEAR BURNHAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate sampling method; 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
NOV											
12...	0700	E18	1090	8.1	--	--	--	--	--	--	--
DEC											
05...	1300	E18	726	7.8	--	--	--	--	--	--	--
JAN											
17...	1300	19	840	8.7	9.5	.0	11.6	79	0	12	12

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
NOV											
12...	--	--	--	--	--	--	--	--	--	--	--
DEC											
05...	--	--	--	--	--	--	--	--	--	--	--
JAN											
17...	170	8.3	3.4	380	18	342	280	4.5	.5	.5	571

DATE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	SAMPLE SOURCE (72005)
NOV											
12...	--	--	--	--	--	--	--	--	740	--	40
DEC											
05...	--	--	--	--	--	--	--	--	120	--	40
JAN											
17...	689	3.8	.09	15	19	3.70	30	300	--	6.0	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SAMPLE SOURCE (72005)
NOV					
12...	0700	75	2.3	0	40
DEC					
05...	1300	31	1.6	6	40

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JAN			
17...	1300	K430	17000

09367936 BURNHAM WASH NEAR BURNHAM, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SAMPLE SOURCE (72005)
NOV					
12...	0700	E18	--	291000	40
DEC					
05...	1300	E18	--	68100	40
JAN					
17...	1300	19	.0	39900	--

09367938 CHACO RIVER NEAR BURNHAM, NM

LOCATION.--Lat 36°21'57", long 108°33'57", San Juan County, Hydrologic Unit 14080106, in Navajo Indian Reservation, on downstream end of second pier on Navajo Highway bridge, 1,300 ft (396 m) downstream from Captain Tom Wash, 2,100 ft (640 m) downstream from Brimhall Wash, 3.5 mi (5.6 km) west of Burnham Trading Post, and about 35 mi (56.3 km) upstream from mouth.

DRAINAGE AREA.--3,640 mi^2 (9,430 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,320 ft (1,622 m), from topographic map.

REMARKS.--Water-discharge records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,740 ft^3/s (191 m^3/s) Jan. 18, 1979, gage height, 4.38 ft (1.335 m) from rating curve extended above 3,540 ft^3/s (100 m^3/s); no flow most of time.

EXTREMES FOR CURRENT YEAR.--Peak discharge above base of 1,000 ft^3/s (28.3 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 23	1600	2,000	56.6	3.95	1.204
Jan. 18	Unknown	a*6,740	191	4.38	1.335
Feb. 14	Unknown	5,000	142	4.30	1.311
Mar. 9	1700	1,500	42.5	2.90	0.884
May 24	2100	3,800	108	3.95	1.204
Aug. 17	0530	3,800	108	3.89	1.186

a From rating curve extended as explained above.

No flow most of time.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	.00	.00	8.5	.00	17	.00	9.0	.00	.00
2	.00	.00	.00	.00	.00	5.0	.00	15	7.0	8.5	.00	.00
3	.00	700	1.0	.00	.00	.00	.00	12	188	.02	.00	.00
4	.00	350	.01	.00	.00	.00	.00	3.1	64	.00	.00	.00
5	.00	225	.00	.00	.00	.00	.00	.00	10	.00	.00	.00
6	.00	100	.00	.00	.00	.00	.00	.00	2.5	.00	.00	.00
7	.00	58	.00	.00	.00	3.0	.00	.00	.19	.00	.00	.00
8	.00	42	.00	.00	.00	66	.00	80	.00	.00	.00	.00
9	.00	60	200	.00	.00	960	.00	28	.00	.00	.00	.00
10	.00	88	14	.00	.00	270	.00	9.0	.00	.00	2.8	.00
11	.00	120	.00	.00	.00	100	.00	3.0	.00	.00	.50	.00
12	.00	150	.00	1.8	15	38	.00	.00	.00	.00	.00	.00
13	.00	70	.00	3.3	150	34	.00	.00	.00	.00	.00	.00
14	.00	32	.00	5.8	2100	31	.00	.00	.00	.00	.00	.00
15	.00	85	.00	10	1500	29	.00	.00	.00	.00	.00	.00
16	.00	170	.00	100	1200	32	.00	.00	.00	.00	80	.00
17	.00	86	4.5	680	880	31	.00	.00	.00	.00	455	.00
18	.00	35	29	3900	660	31	.00	.00	.00	2.6	735	.00
19	.00	18	150	3500	450	30	110	.00	.00	4.4	283	.00
20	3.0	9.0	600	1100	250	110	88	.00	.00	.00	22	.00
21	12	3.7	170	200	140	125	105	.00	.00	.00	6.1	.00
22	56	1.2	50	60	90	430	122	.00	.00	.00	2.2	.00
23	250	.00	15	15	54	150	140	.00	.00	.00	.46	.00
24	120	.00	4.0	4.0	62	33	110	325	.00	.00	.00	.00
25	64	680	.00	.00	56	10	80	39	.00	.00	.00	.00
26	31	150	.00	.00	62	2.5	57	2.9	.00	.00	.00	.00
27	17	45	.00	.00	32	.00	41	.19	.00	.00	.00	.00
28	3.5	12	.00	.00	17	.00	29	28	.00	.00	.00	.00
29	.00	3.0	.00	.00	---	.00	24	64	.00	.00	.00	.00
30	.00	.00	.00	.00	---	.00	20	.62	.00	.00	.00	.00
31	.00	---	.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	556.50	3292.90	1237.51	9579.90	7718.00	2529.00	926.00	626.81	271.69	24.52	1587.06	.00
MEAN	18.0	110	39.9	309	276	81.6	30.9	20.2	9.06	.79	51.2	.000
MAX	250	700	600	3900	2100	960	140	325	188	9.0	735	.00
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
AC-FT	1100	6530	2450	19000	15310	5020	1840	1240	539	49	3150	.00

CAL YR 1978 TOTAL 10486.11 MEAN 28.7 MAX 1560 MIN .00 AC-FT 20800

WTR YR 1979 TOTAL 28349.89 MEAN 77.7 MAX 3900 MIN .00 AC-FT 56230

09367938 CHACO RIVER NEAR BURNHAM, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

REMARKS.--Under the heading SAMPLE SOURCE numerical values are used to indicate sampling method; 40 indicates single-stage sample.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)
OCT										
23...	1230	252	820	8.5	14.0	11.0	9.1	--	--	--
DEC										
21...	0130	E1190	840	7.7	--	--	--	--	--	--
21...	0145	E2160	805	7.7	--	--	--	--	--	--
21...	0200	E4950	713	7.7	--	--	--	--	--	--
JAN										
19...	1600	3540	555	8.7	1.5	1.5	11.2	--	--	--
MAR										
07...	1630	3.0	630	8.6	15.0	15.0	8.1	40	0	14
APR										
23...	1245	141	300	8.3	26.5	20.0	7.4	65	0	26
MAY										
03...	1415	11	300	8.0	17.0	18.0	7.8	80	0	27
24...	2000	1990	845	8.5	--	--	--	--	--	--
JUN										
04...	1600	29	750	8.6	32.0	24.0	6.5	34	0	12
AUG										
17...	1045	239	1040	8.5	27.0	17.5	8.0	45	0	16
20...	1900	23	880	7.5	--	--	--	46	0	16

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
OCT									
23...	--	--	--	--	498*	10	425	--	--
DEC									
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
JAN									
19...	.9	--	--	3.5	340*	16	306	160	6.7
MAR									
07...	1.3	130	8.9	2.3	240	8	210	130	5.7
APR									
23...	--	34	--	2.9	282	0	231	77	4.3
MAY									
03...	3.1	36	1.8	1.9	128	0	105	81	2.5
24...	--	--	--	--	--	--	--	--	--
JUN									
04...	1.0	150	11	3.0	510*	12	438	180	10
AUG									
17...	1.1	200	13	4.8	240	10	213	300	11
20...	1.3	170	11	4.2	--	--	240	160	--

* Determined on well mixed water-sediment sample.

09367938 CHACO RIVER NEAR BURNHAM, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)
OCT									
23...	--	--	--	--	--	--	--	--	--
DEC									
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--
JAN									
19...	.7	9.0	375	--	1.2	--	.53	12	14
MAR									
07...	.7	8.6	395	419	1.9	--	.08	.49	2.5
APR									
23...	.3	12	223	296	.39	--	.04	4.9	5.3
MAY									
03...	.2	19	217	234	.16	--	.03	.23	.42
24...	--	--	--	--	--	--	--	--	--
JUN									
04...	1.2	23	479	644	2.3	--	.18	14	16
AUG									
17...	1.2	5.5	688	669	3.1	--	1.1	1.3	5.5
20...	1.0	18	556	521	1.7	1.2	.07	22	24

DATE	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
OCT									
23...	--	--	--	--	--	--	--	--	--
DEC									
21...	--	--	--	--	--	93	--	--	40
21...	--	--	--	--	--	29	--	--	40
21...	--	--	--	--	--	110	--	--	40
JAN									
19...	3.80	--	70	370	--	--	9.0	.4	--
MAR									
07...	1.30	--	80	110	--	--	9.6	8.0	--
APR									
23...	2.20	--	50	190	--	--	9.9	33	--
MAY									
03...	.920	--	50	10	20	--	9.6	--	--
24...	--	--	--	--	--	140	--	--	40
JUN									
04...	3.40	--	90	240	--	--	12	470	--
AUG									
17...	7.10	--	130	200	3	--	14	--	--
20...	3.50	.13	120	40	0	--	--	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) (01012)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)
DEC										
21...	0130	--	31	--	--	--	--	--	--	--
21...	0145	--	39	--	--	--	--	--	--	--
21...	0200	--	37	--	--	--	--	--	--	--
MAY										
03...	1415	30	5	1	600	0	0	0	--	50
24...	2000	--	43	--	--	--	--	--	--	--
AUG										
17...	1045	440	--	4	--	60	--	<1	--	130
20...	1900	--	95	3	3000	300	--	--	130	120

09367938 CHACO RIVER NEAR BURNHAM, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
DEC										
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	--	--	--	--
MAY										
03...	0	0	30	0	12	0	33	0	--	10
24...	--	--	--	--	--	--	--	--	--	--
AUG										
17...	--	2	--	10	--	<3	--	24	--	200
20...	--	--	--	--	--	--	--	--	200000	40

DATE	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, TOTAL RECOV-ERABLE (UG/L AS MO) (01062)
DEC									
21...	--	--	--	--	--	--	--	--	--
21...	--	--	--	--	--	--	1.2	--	--
21...	--	--	--	--	--	--	1.1	--	--
MAY									
03...	56	0	50	0	610	20	.3	.1	0
24...	--	--	--	--	--	--	3.6	--	--
AUG									
17...	--	3	--	10	--	3	--	.1	--
20...	500	0	--	--	8000	0	--	--	--

DATE	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOV-ERABLE (UG/L AS NI) (01067)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
DEC									
21...	--	--	--	--	--	--	--	--	40
21...	--	--	--	4	--	--	--	--	40
21...	--	--	--	5	--	--	--	--	40
MAY									
03...	0	31	0	1	1	3.1	130	10	--
24...	--	--	--	10	--	--	--	--	40
AUG									
17...	<10	--	4	--	6	3.0	--	5	--
20...	--	--	--	--	--	--	--	--	--

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	BARIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS BA) (01008)	BERYL-LIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01013)	CADMIUM RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CD) (01028)	CHRO-MIUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS CU) (01043)
MAY								
03...	1415	0	72	0	0	2	0	1

DATE	LEAD, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS PB) (01052)	MANGA-NESE, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01053)	MERCURY RECOV. FM BOT-TOM MA-TERIAL (UG/G AS HG) (71921)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01063)	NICKEL, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS NI) (01068)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01148)	ZINC, RECOV. FM BOT-TOM MA-TERIAL (UG/G AS ZN) (01093)
MAY							
03...	0	0	.02	0	0	0	9

09367938 CHACO RIVER NEAR BURNHAM, NM -- Continued

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)
OCT							
23...	1230	9.4	3100	7.9	2000	7.3	1900

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
23...	1230	27000	80000
JAN			
19...	1600	K210	480000
MAR			
07...	1630	K0	3800
APR			
23...	1245	K0	6600
MAY			
03...	1415	K70	1400
AUG			
17...	1045	3000	35000

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)
OCT										
23...	1230	252	11.0	59400	69	76	87	92	95	100
DEC										
21...	0130	E1190	--	37800	--	--	--	--	--	--
21...	0145	E2160	--	38100	--	--	--	--	--	--
21...	0200	E4950	--	47100	--	--	--	--	--	--
JAN										
19...	1600	3540	1.5	54700	--	--	--	--	--	--
MAR										
07...	1630	3.0	15.0	9890	--	--	--	--	--	--
APR										
23...	1245	141	20.0	7590	--	--	--	--	--	--
MAY										
03...	1415	11	18.0	2470	80	94	96	96	98	100
24...	2000	1990	--	36600	--	--	--	--	--	--
JUN										
04...	1600	29	24.0	34800	--	--	--	--	--	--
AUG										
17...	1045	239	17.5	236000	66	74	82	86	92	99
20...	1900	23	--	51100	--	--	--	--	--	--

09367938 CHACO RIVER NEAR BURNHAM, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. FALL DIAM. % FINER THAN 2.00 MM (80163)	SAMPLE SOURCE (72005)
OCT									
23...	--	--	5	12	54	90	99	100	--
DEC									
21...	--	--	--	--	--	--	--	--	40
21...	--	--	--	--	--	--	--	--	40
21...	--	--	--	--	--	--	--	--	40
JAN									
19...	--	--	--	--	--	--	--	--	--
MAR									
07...	--	--	--	--	--	--	--	--	--
APR									
23...	--	--	--	--	--	--	--	--	--
MAY									
03...	--	--	1	3	51	92	100	--	--
24...	--	--	--	--	--	--	--	--	40
JUN									
04...	--	--	--	--	--	--	--	--	--
AUG									
17...	100	--	11	16	47	88	99	100	--
20...	--	100	--	--	--	--	--	--	--

09367950 CHACO RIVER NEAR WATERFLOW, NM

LOCATION.--Lat 36°43'28", long 108°35'27", in SW¼SW¼ sec. 13, T.29 N., R.17 W., San Juan County, Hydrologic Unit 14080106, on downstream end of right bridge pier, 4.2 mi (6.8 km) upstream from Dead Mans Wash, 5.3 mi (8.5 km) downstream from the Hogback, 6.6 mi (10.6 km) southwest of Waterflow, 7.2 mi (11.6 km) southeast of Shiprock, and at mile 4.5 (7.2 km).

DRAINAGE AREA.--4,350 mi² (11,300 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--Water years 1959-69 (annual maximum only), November 1975 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,980 ft (1,518 m), from topographic map. Prior to 1975 at site 1.8 mi (2.9 km) upstream.

REMARKS.--Water-discharge records good, except those above 100 ft³/s (2.8 m³/s), which are fair. Base flow is mostly waste water from Four Corners Power Plant.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,300 ft³/s (207 m³/s), Sept. 20, 1969, gage height, 7.88 ft (2.402 m) site and datum then in use; minimum not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 290 ft³/s (8.2 m³/s) and maximum (*).

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 3	1500	1,030	29.2	4.24	1.292
Nov. 25	1445	1,180	33.4	4.56	1.390
Dec. 19	2215	565	16.0	3.47	1.058
Jan. 18	1815	a*3,400	96.3	7.37	2.246
Feb. 15	1930	2,220	62.9	6.13	1.868
Mar. 9	0815	459	13.0	3.49	1.064
Mar. 22	2200	552	15.6	3.63	1.106
May 25	0930	367	10.4	3.47	1.058
Aug. 19	0400	852	24.1	4.10	1.250

a From rating curve extended above 750 ft³/s (21 m³/s) on basis of slope-area measurement of peak flow.

Minimum daily discharge, 6.7 ft³/s (0.19 m³/s) May 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	30	25	26	48	21	29	79	7.9	20	20	32
2	30	29	28	28	47	21	30	63	8.9	20	19	31
3	31	320	22	30	49	22	28	59	15	21	21	32
4	32	657	21	33	46	21	27	46	67	21	20	31
5	32	233	21	31	45	21	27	35	31	22	22	32
6	32	174	21	31	42	22	27	29	16	21	22	32
7	34	142	20	30	42	35	27	29	11	22	23	32
8	36	125	20	29	41	29	26	36	8.7	21	26	31
9	36	109	21	29	41	236	37	39	8.3	22	34	32
10	35	86	91	28	40	476	32	36	8.6	21	31	31
11	33	82	99	27	39	127	28	30	7.8	20	33	30
12	28	103	20	27	38	102	29	24	8.5	21	33	30
13	27	110	20	27	58	72	28	22	8.7	23	35	30
14	27	60	19	26	645	72	28	21	9.3	22	37	30
15	32	66	18	26	1470	72	27	19	9.9	23	41	30
16	33	68	19	26	1430	66	27	20	11	23	42	27
17	33	115	23	145	1390	61	28	20	11	24	63	29
18	33	83	30	1820	1080	64	30	19	12	21	279	31
19	32	61	246	2330	598	94	36	19	12	23	245	34
20	39	48	312	905	268	113	97	18	10	23	46	34
21	95	36	321	315	127	122	88	17	10	23	21	35
22	130	28	150	150	39	199	99	17	11	22	16	35
23	165	25	30	85	25	205	113	16	13	23	13	36
24	213	27	20	80	20	102	137	17	16	23	14	37
25	119	545	20	69	26	61	123	75	16	22	18	36
26	107	654	20	79	20	43	107	18	17	23	18	32
27	95	235	20	70	27	35	103	9.5	17	22	20	33
28	70	105	20	60	21	31	100	6.7	18	23	27	34
29	49	48	20	58	---	28	95	13	16	19	31	33
30	39	36	20	63	---	27	77	14	19	17	31	31
31	32	---	56	58	---	29	---	8.3	---	21	32	---
TOTAL	1743	4440	1793	6741	7762	2629	1690	874.5	435.6	672	1333	963
MEAN	56.2	148	57.8	217	277	84.8	56.3	28.2	14.5	21.7	43.0	32.1
MAX	213	657	321	2330	1470	476	137	79	67	24	279	37
MIN	14	25	18	26	20	21	26	6.7	7.8	17	13	27
AC-FT	3460	8810	3560	13370	15400	5210	3350	1730	864	1330	2640	1910

CAL YR 1978 TOTAL 19150.2 MEAN 52.5 MAX 2050 MIN 3.0 AC-FT 37980
WTR YR 1979 TOTAL 31076.1 MEAN 85.1 MAX 2330 MIN 6.7 AC-FT 61640

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1976 to current year.

PERIOD OF DAILY RECORD.--
SUSPENDED SEDIMENT DISCHARGE: October 1976 to current year.

INSTRUMENTATION.--Automatic pumping sediment sampler.

REMARKS.--Under the heading of SAMPLE SOURCE numerical values are used to indicate sampling method; 26 indicates by automatic pump, 29 indicates dip or grab sample, and 40 indicates single-stage sample.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SEDIMENT CONCENTRATIONS: Maximum daily, 140,000 mg/L Jan. 18, 1979; minimum daily, 15 mg/L May 26, 27, 1978.
SEDIMENT LOADS: Maximum daily, 740,000 tons (671,000 tonnes) Sept. 25, 1978; minimum daily, .10 tones (.09 tonnes) May 26, 27, 1978.

EXTREMES FOR CURRENT YEAR.--
SEDIMENT CONCENTRATIONS: Maximum daily, 140,000 mg/L Jan. 18; minimum daily, 100 mg/L June 11.
SEDIMENT LOADS: Maximum daily, 688,000 tons (624,000 tonnes) Jan. 18; minimum daily 2.1 tons (1.9 tonnes) June 11.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW (CFS) (00060)	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)
OCT										
24...	1830	--	252	825	7.7	--	8.0	--	--	--
NOV										
03...	1230	--	E245	1075	7.5	--	--	--	--	--
03...	1231	--	E245	1100	7.5	--	--	--	--	--
14...	1020	--	45	1675	7.4	--	7.0	--	--	--
DEC										
20...	0952	--	145	880	8.1	-1.0	.0	15000	11.6	170
JAN										
03...	1010	--	27	1900	7.5	--	.0	--	--	--
22...	1400	--	150	1185	7.3	--	1.0	--	--	--
FEB										
15...	1200	--	625	1025	7.4	--	3.0	--	--	--
15...	1600	--	E1310	825	7.7	--	--	--	--	--
16...	1800	--	565	310	7.4	--	--	--	--	--
MAR										
06...	1340	--	36	1750	7.8	--	--	--	--	--
14...	0830	--	E80	1550	8.3	11.0	5.5	1600	10.8	130
29...	1000	--	30	1950	7.9	--	8.0	--	--	--
APR										
26-28	--	E89	--	1100	7.5	--	--	--	--	--
MAY										
23...	1400	--	E78	1900	8.3	32.0	26.0	--	7.2	--
25...	1030	--	E500	2100	7.2	--	--	--	--	--
29...	1530	--	58	2050	8.2	--	27.0	--	--	--
JUL										
09...	1622	--	E26	2000	7.8	35.0	--	--	--	--
09...	1655	--	E26	2000	7.1	--	35.0	--	--	--
10-31	--	E32	--	2000	8.1	35.0	--	--	--	--
12...	0900	--	29	1750	7.8	--	17.0	--	--	--
31...	1420	--	E35	2000	8.1	--	--	--	--	--
31...	1430	--	35	1920	8.4	--	--	--	--	--
31...	1630	--	E35	2000	8.3	35.0	--	--	--	--
AUG										
10...	1400	--	E41	2630	7.1	--	--	--	--	--
17...	2320	--	E350	1900	7.2	--	--	--	--	--
17...	2330	--	E500	1790	7.1	--	--	--	--	--
20...	1230	--	58	1375	7.3	--	24.0	--	--	--
SEP										
11...	1230	--	39	1800	7.8	--	29.0	--	--	--
11...	1330	--	E39	1800	7.3	--	29.0	--	--	--
11...	1430	--	E39	1850	7.3	--	29.0	--	--	--
26...	0900	--	E91	1800	8.4	19.0	16.5	290	8.7	28

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)
OCT										
24...	--	--	--	--	--	--	--	300*	--	246
NOV										
03...	--	--	--	--	--	--	--	486*	--	399
03...	--	--	--	--	--	--	--	446*	--	366
14...	--	--	--	--	--	--	--	238	--	195
DEC										
20...	74	0	26	2.3	140	7.1	4.3	--	--	110
JAN										
03...	--	--	--	--	--	--	--	134	--	110
22...	--	--	--	--	--	--	--	--	--	--
FEB										
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
MAR										
06...	--	--	--	--	--	--	--	152	--	125
14...	400	270	130	19	190	4.1	5.7	--	--	130
29...	--	--	--	--	--	--	--	172	--	141
APR										
26-28	320	220	98	17	140	3.4	5.6	--	--	95
MAY										
23...	660	570	--	40	200	3.4	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	128	--	105
JUL										
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
10-31	720	480	220	40	240	3.9	7.7	110	--	89
12...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
AUG										
10...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
SEP										
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
26...	520	440	150	36	180	3.4	7.2	--	--	85

* Determined on well mixed water-sediment sample.

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)
OCT										
24...	--	--	--	--	--	--	--	--	--	--
NOV										
03...	--	--	--	--	--	--	--	--	--	--
03...	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--
DEC										
20...	240	14	1.1	11	518	517	2.5	2.5	.01	--
JAN										
03...	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--
FEB										
15...	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	--	--	--	--	--
MAR										
06...	--	--	--	--	--	--	--	--	--	--
14...	550	59	2.3	6.5	1090	1050	1.9	1.9	.06	--
29...	--	--	--	--	--	--	--	--	--	--
APR										
26-28	450	42	1.4	12	849	826	--	--	--	--
MAY										
23...	--	--	4.0	--	--	1420	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--
JUL										
09...	--	--	--	--	--	--	--	--	--	--
09...	--	--	--	--	--	--	--	--	--	--
10-31	940	120	4.5	8.3	1660	1730	2.0	--	.04	--
12...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	--	--	--
AUG										
10...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--
SEP										
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--
26...	710	88	4.3	4.2	1340	1240	1.5	1.3	--	.04

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)	SAMPLE SOURCE (72005)
OCT										
24...	--	--	--	--	540	0	0	--	--	--
NOV										
03...	--	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	--	40
14...	--	--	--	--	3300	0	10	--	--	--
DEC										
20...	11	14	.860	.00	600	70	0	4.1	.3	--
JAN										
03...	--	--	--	--	4600	20	10	--	--	--
22...	--	--	--	--	1300	0	0	--	--	--
FEB										
15...	--	--	--	--	290	20	0	--	--	--
15...	--	--	--	--	--	--	--	--	--	40
16...	--	--	--	--	--	--	--	--	--	--
MAR										
06...	--	--	--	--	--	--	--	--	--	--
14...	7.1	9.1	1.20	.04	2300	10	10	4.0	.8	--
29...	--	--	--	--	--	30	0	--	--	--
APR										
26-28	--	--	--	--	1400	10	10	--	--	--
MAY										
23...	.68	2.4	--	--	6400	--	--	3.6	--	--
25...	--	--	--	--	--	--	--	--	--	26
29...	--	--	--	--	260	20	0	--	--	--
JUL										
09...	--	--	--	--	4400	60	20	--	--	26
09...	--	--	--	--	--	--	--	--	--	26
10-31	.62	2.7	.380	--	7300	30	10	--	--	26
12...	--	--	--	--	6300	10	<1	--	--	--
31...	--	--	--	--	6200	<10	--	--	--	26
31...	--	--	--	--	7900	0	<1	--	--	--
31...	--	--	--	--	9300	100	20	--	--	26
AUG										
10...	--	--	--	--	--	--	--	--	--	26
17...	--	--	--	--	--	--	--	--	--	40
17...	--	--	--	--	--	--	--	--	--	40
20...	--	--	--	--	1600	20	0	--	--	--
SEP										
11...	--	--	--	--	4700	30	<1	--	--	--
11...	--	--	--	--	--	--	--	--	--	26
11...	--	--	--	--	--	--	--	--	--	26
26...	--	--	.260	--	3500	<10	<1	3.8	1.3	--

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
OCT												
24...	1830	70	1	2400	0	--	580	540	--	--	--	--
NOV												
03...	1230	110	--	2000	--	--	490	--	--	--	--	--
03...	1231	98	--	--	--	--	--	--	--	--	--	--
14...	1020	25	1	1400	100	--	3400	3300	--	--	--	--
DEC												
20...	0952	32	2	100	100	--	--	600	4	0	90	0
JAN												
03...	1010	3	2	200	0	--	4700	4600	--	--	--	--
22...	1400	20	1	1200	100	--	1300	1300	--	--	--	--
FEB												
15...	1200	50	1	3200	100	--	400	290	--	--	--	--
15...	1600	20	--	3200	--	--	280	--	--	--	--	--
16...	1800	28	--	3200	--	--	190	--	--	--	--	--
MAR												
06...	1340	10	--	800	--	--	1800	--	--	--	--	--
14...	0830	30	3	1400	100	--	--	2300	0	0	50	0
29...	1000	3	2	400	100	--	--	--	--	--	--	--
APR												
26-28	--	13	1	1000	200	--	1100	1400	--	--	--	--
MAY												
23...	1400	--	1	--	--	--	--	6400	--	--	--	--
25...	1030	54	--	700	--	--	250	--	--	--	--	--
29...	1530	4	1	300	200	--	--	260	--	--	--	--
JUL												
09...	1622	--	--	--	--	--	4400	4400	--	--	--	--
09...	1655	3	--	400	--	--	7400	--	--	--	--	--
10-31	--	--	--	--	--	--	7300	7300	--	--	--	--
12...	0900	3	2	300	90	<1	6600	6300	--	--	--	--
31...	1420	--	--	--	--	--	6200	6200	--	--	--	--
31...	1430	2	2	--	90	--	8000	7900	--	--	--	--
31...	1630	--	--	--	--	--	10000	9300	--	--	--	--
AUG												
10...	1400	140	--	600	--	--	540	--	--	--	--	--
17...	2320	17	--	1200	--	--	3700	--	--	--	--	--
17...	2330	17	--	1000	--	--	3400	--	--	--	--	--
20...	1230	110	2	1100	200	--	840	1500	--	--	--	--
SEP												
11...	1230	5	2	400	100	--	4900	4700	--	--	--	--
11...	1330	6	--	400	--	--	4700	--	--	--	--	--
11...	1430	6	--	600	--	--	4700	--	--	--	--	--
26...	0900	3	1	200	80	--	--	3500	0	<1	20	10

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOV-ERABLE (UG/L AS LI) (01132)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
OCT												
24...	--	--	--	--	190000	0	600	0	--	--	9600	0
NOV												
03...	--	--	--	--	380000	--	900	--	--	--	17000	--
03...	--	--	--	--	--	--	--	--	--	--	--	--
14...	--	--	--	--	120000	0	200	0	--	--	3400	10
DEC												
20...	40	0	400	10	250000	70	250	1	--	--	2600	0
JAN												
03...	--	--	--	--	14000	20	0	0	--	--	280	10
22...	--	--	--	--	130000	0	400	0	--	--	3600	0
FEB												
15...	--	--	--	--	200000	20	600	0	--	--	11000	0
15...	--	--	--	--	190000	--	700	--	--	--	11000	--
16...	--	--	--	--	160000	--	500	--	--	--	8600	--
MAR												
06...	--	--	--	--	53000	--	0	--	--	--	1100	--
14...	55	0	240	2	100000	10	130	0	--	--	3300	10
29...	--	--	--	--	25000	30	100	2	--	--	370	0
APR												
26-28	--	--	--	--	91000	10	300	0	--	50	2400	10
MAY												
23...	--	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	530000	--	600	--	--	--	17000	--
29...	--	--	--	--	18000	20	0	0	--	--	270	0
JUL												
09...	--	--	--	--	3100	60	--	--	120	120	90	20
09...	--	--	--	--	6800	--	0	--	--	--	140	--
10-31	--	--	--	--	6400	30	--	--	120	110	120	10
12...	--	--	--	--	3000	10	0	0	--	100	80	<1
31...	--	--	--	--	6400	<10	--	--	120	120	230	--
31...	--	--	--	--	4800	0	--	--	--	120	80	<1
31...	--	--	--	--	4800	100	--	--	110	120	100	20
AUG												
10...	--	--	--	--	280000	--	100	--	680	--	26000	--
17...	--	--	--	--	160000	--	--	--	260	--	3800	--
17...	--	--	--	--	120000	--	--	--	220	--	3200	--
20...	--	--	--	--	320000	20	260	0	290	40	9000	0
SEP												
11...	--	--	--	--	410	30	0	0	100	90	260	<1
11...	--	--	--	--	22000	--	0	--	100	--	360	--
11...	--	--	--	--	38000	--	0	--	120	--	1100	--
26...	4	<3	21	2	11000	<10	11	0	--	--	180	<1

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	MERCURY TOTAL RECOV- ERABLE (UG/L AS HG) (71900)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)	SELE- NIUM, TOTAL (UG/L AS SE) (01147)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV- ERABLE (UG/L AS AG) (01077)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	ZINC, TOTAL RECOV- ERABLE (UG/L AS ZN) (01092)	ZINC, DIS- SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
OCT											
24...	--	--	--	--	--	--	--	--	--	--	--
NOV											
03...	--	--	--	--	--	--	--	--	--	--	40
03...	--	--	--	--	--	--	--	--	--	--	40
14...	--	--	--	--	--	--	--	--	--	--	--
DEC											
20...	.9	.0	--	10	1	3	0	--	880	10	--
JAN											
03...	--	--	--	--	--	--	--	--	--	--	--
22...	--	--	--	--	--	--	--	--	--	--	--
FEB											
15...	--	--	--	--	--	--	--	--	--	--	--
15...	--	--	--	--	--	--	--	--	--	--	40
16...	--	--	--	--	--	--	--	--	--	--	--
MAR											
06...	--	--	--	15	--	--	--	--	--	--	--
14...	.3	.1	--	29	9	0	0	--	360	20	--
29...	--	--	--	--	--	--	--	--	--	--	--
APR											
26-28	--	--	--	--	--	--	--	1300	--	--	--
MAY											
23...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	26
29...	--	--	--	14	13	--	--	--	--	--	--
JUL											
09...	--	--	--	--	--	--	--	2100	--	--	26
09...	--	--	--	--	--	--	--	--	--	--	26
10-31	--	--	--	--	--	--	--	2100	--	--	26
12...	--	--	60	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	2000	--	--	26
31...	--	--	--	--	--	--	--	--	--	--	--
31...	--	--	--	--	--	--	--	2000	--	--	26
AUG											
10...	--	--	--	--	--	--	--	--	--	--	26
17...	--	--	--	--	--	--	--	--	--	--	40
17...	--	--	--	--	--	--	--	--	--	--	40
20...	--	--	--	--	--	--	--	--	--	--	--
SEP											
11...	--	--	--	--	--	--	--	--	--	--	--
11...	--	--	--	--	--	--	--	--	--	--	26
11...	--	--	--	--	--	--	--	--	--	--	26
26...	.2	.5	--	12	11	0	0	--	60	<3	--

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	NITRO- GEN, NO2+NO3 TOT. IN BOT MAT (MG/KG AS N) (00633)	NITRO- GEN,TOT IN BOT- TOM MA- TERIAL (MG/KG AS N) (00603)	PHOS- PHORUS, TOTAL IN BOT. MAT. (MG/KG AS P) (00668)	ARSENIC TOTAL IN BOT- TOM MA- TERIAL (UG/G AS AS) (01003)	CADMIUM RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CD) (01028)	CHRO- MIUM, RECOV. FM BOT- TOM MA- TERIAL (UG/G) (01029)	COBALT, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOT- TOM MA- TERIAL (UG/G AS CU) (01043)
DEC									
20...	0952	.0	--	330	3	0	0	0	1
MAR									
14...	0830	5.5	--	160	6	0	2	0	2
MAY									
23...	1400	.0	14	1	3	0	2	0	3
SEP									
26...	0900	.0	89	250	6	0	2	5	2

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	IRON, RECOV. FM BOTTOM MATERIAL (UG/G AS FE) (01170)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)	CARBON, INORG + ORGANIC TOT. IN BOT MAT (G/KG AS C) (00693)	CARBON, ORGANIC TOT. IN BOTTOM MAT. (G/KG AS C) (00687)	CARBON, INORGANIC, TOT IN BOT MAT (G/KG AS C) (00686)
DEC 20...	870	10	190	.00	0	10	--	--	--
MAR 14...	1400	0	270	.00	0	6	3.5	.8	2.7
MAY 23...	4000	0	240	.00	0	15	10	8.6	1.4
SEP 26...	2800	30	300	.00	0	11	1.5	.1	1.4

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CA-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DISSOLVED, EXTRACTION (UG/L) (80020)
DEC 20...	0952	8.7	1400	10	560	9.7	510	.04	5.4
MAR 14...	0830	17	430	9.5	260	8.9	250	.13	7.9
MAY 23...	1400	<25	24	<8.3	20	<7.7	19	.14	7.4
SEP 26...	0900	<23	25	13	17	13	17	.10	6.2

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
DEC 20...	0952	0	40000
MAR 14...	0830	200	2600
MAY 23...	1400	10	450
SEP 26...	0900	87	360

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE TIME	DEC 20,78 0952	MAR 14,79 0830	MAY 23,79 1400	SEP 26,79 0900
TOTAL CELLS/ML	21000	1500	150	8100
DIVERSITY: DIVISION	0.8	0.0	0.0	0.4
.CLASS	0.8	0.0	0.0	0.4
..ORDER	1.5	0.9	0.9	0.5
...FAMILY	1.6	1.6	1.6	0.5
....GENUS	1.6	1.6	1.6	0.5

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	500#	33	52#	33	120	1
..PENNALES								
...NAVICULACEAE								
....NAVICULA	630	3	500#	33	52#	33	--	-
...NITZSCHIACEAE								
....NITZSCHIA	--	-	500#	33	52#	33	470	6
...SURIRELLACEAE								
....SURIRELLA	630	3	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	630	3	--	-	--	-	--	-
...CRYPTOMONADACEAE								
....CRYPTOMONAS	1300	6	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..CHROOCOCCALES								
...CHROOCOCCACEAE								
....ANACYSTIS	5000#	24	--	-	--	-	120	1
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	13000#	61	--	-	--	-	7400#	91

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

SAN JUAN RIVER BASIN

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
OCT						
24...	1800	E284	--	39600	95	26
24...	1830	252	8.0	43300	94	--
24...	2200	E183	--	28900	97	26
25...	0200	E156	--	36000	--	26
25...	0300	E228	--	36400	99	26
25...	0600	E138	--	35300	--	26
25...	1000	E94	--	30100	--	26
25...	1400	E171	--	17000	99	26
25...	1800	E150	--	26400	--	26
25...	2200	E112	--	24800	--	26
26...	0200	E100	--	21900	--	26
26...	0600	E125	--	19300	--	26
26...	1000	E112	--	20200	100	26
26...	1200	E108	--	11300	--	26
NOV						
03...	1230	E245	--	71500	94	40
03...	1231	E245	--	69300	98	40
14...	1020	45	7.0	12600	98	--
JAN						
03...	1010	27	.0	851	17	--
22...	1400	150	1.0	11300	98	--
FEB						
15...	1200	625	3.0	33700	92	--
15...	1600	E1310	--	56900	72	40
16...	1800	565	--	41100	60	--
MAR						
06...	1340	36	--	3760	97	--
14...	0830	E80	5.5	453	90	--
29...	1000	30	8.0	1190	98	--
APR						
26...	1300	E64	--	10200	78	26
26...	2100	E122	--	10100	76	26
26...	2400	E135	--	11100	62	26
27...	0200	E125	--	9960	67	26
27...	2200	E112	--	9440	69	26
27...	2400	E165	--	8310	72	26
28...	0200	E137	--	9890	59	26
MAY						
09...	1100	E112	10.5	1810	95	--
09...	1103	E112	--	1670	98	26

DATE	TIME	STREAM-FLOW (CFS) (00060)	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
MAY							
09...	1104	--	E112	--	1700	100	26
09...	1105	--	E245	--	1860	94	40
23...	1400	--	E78	26.0	24300	92	--
25...	1030	--	E500	--	67800	94	26
29...	1530	--	58	27.0	872	94	--
JUL							
09...	1622	--	E26	--	315	94	26
09...	1655	--	E26	35.0	379	90	26
10-31	--	E32	--	--	380	89	26
12...	0900	--	29	17.0	225	98	--
31...	1420	--	E35	--	329	77	26
31...	1430	--	35	--	246	90	--
31...	1630	--	E35	--	309	90	26
AUG							
17...	2300	--	E41	--	165000	67	26
17...	2320	--	E350	--	29500	42	40
17...	2330	--	E500	--	17100	62	40
20...	1230	--	58	24.0	38100	90	--
SEP							
11...	1230	--	39	29.0	805	100	--
11...	1330	--	E39	29.0	1080	88	26
11...	1430	--	E39	29.0	3780	49	26
26...	0900	--	E91	16.5	622	96	--

09367950 CHACO RIVER NEAR WATERFLOW, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
1	400	15	850	69	1000	68	21300	3800	2500	324	4000	227
2	800	65	710	56	800	60	5500	846	2400	305	3700	210
3	1000	84	43500	73000	600	36	850	101	2700	357	3800	226
4	1000	86	65500	125000	500	28	850	76	2500	310	3700	210
5	1000	86	30000	18900	500	28	840	70	2400	292	3700	210
6	1000	86	17000	7990	500	28	840	70	2200	249	3760	223
7	1200	110	11500	4410	450	24	840	68	2200	249	5000	405
8	1500	146	9500	3210	450	24	830	65	2000	221	4500	304
9	1500	146	8000	2350	500	28	830	65	2000	221	74100	52800
10	1400	132	6500	1510	18800	8320	830	63	1800	194	88700	120000
11	1300	116	5500	1220	19600	9480	820	60	1600	168	60000	19400
12	800	60	17000	6880	2200	119	820	60	1500	154	53000	13500
13	700	51	29400	8730	2100	113	820	60	6000	940	37000	6500
14	600	44	12500	2020	1800	92	810	57	66800	146000	37000	6400
15	1000	86	11100	1980	1600	78	810	57	82000	334000	37000	6500
16	1200	107	19000	3490	1800	92	810	57	52000	206000	35800	5800
17	1200	107	50300	15600	2500	155	33700	17100	26000	101000	34400	5300
18	1200	107	31500	7060	4500	364	140000	688000	17000	49600	35800	5900
19	1100	95	19000	3130	38000	28700	106000	667000	17000	27400	41600	10100
20	2000	211	12100	1570	35500	29900	65500	171000	12000	8680	51000	15000
21	24000	6160	10000	972	39000	33800	24500	20800	10000	3430	53400	17000
22	26000	9130	8200	620	21000	8510	12000	4860	6000	632	71500	49600
23	29500	13100	7200	486	12200	1780	10000	2300	5000	338	68500	37000
24	30000	17300	7100	518	10200	1490	8000	1730	4000	216	48100	13000
25	29000	9320	76300	152000	9300	1180	6000	1120	6000	421	37000	5790
26	13500	3900	61200	105000	8000	1020	8000	1710	4000	216	18500	2050
27	4750	1220	26000	16500	6300	919	6000	1130	6000	437	4500	401
28	3950	747	21000	5950	6000	859	4000	648	4500	255	1980	166
29	3850	509	11000	1430	5000	716	3500	548	---	---	1190	90
30	2000	211	4000	389	6000	859	4500	765	---	---	1100	80
31	1210	105	---	---	15100	3740	3500	548	---	---	1200	94
TOTAL	---	63642	---	572040	---	132610	---	1584834	---	882609	---	394486

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
1	1200	94	5800	1240	500	11	330	18	290	16	1100	95
2	1300	105	3700	629	430	10	330	18	280	14	1000	84
3	1200	91	2540	405	550	22	340	19	300	17	1100	95
4	1100	80	2300	286	38700	7000	340	19	290	16	1000	84
5	1100	80	2070	196	17500	1460	350	21	310	18	1100	95
6	1100	80	2000	157	560	24	340	19	310	18	1100	95
7	1100	80	1940	152	438	13	350	21	320	20	1100	95
8	1000	70	1810	176	417	9.8	340	19	500	35	1000	84
9	22000	2200	1740	183	312	7.0	347	20	900	83	1100	95
10	16200	1400	1550	151	200	4.6	380	22	600	50	1000	84
11	6000	454	1330	108	100	2.1	380	20	800	71	942	76
12	2000	157	1200	78	190	4.4	302	17	800	71	940	76
13	1500	113	1200	71	210	4.9	380	24	1000	94	940	76
14	1500	113	1100	62	230	5.8	380	23	1000	100	940	76
15	1300	95	780	40	250	6.7	380	24	1100	122	940	76
16	1300	95	925	50	260	7.7	380	24	1100	125	800	58
17	1500	113	925	50	260	7.7	380	25	7710	1310	600	47
18	2000	162	780	40	270	8.7	380	22	110000	93400	600	50
19	5700	554	780	40	270	8.7	380	24	110000	87400	620	57
20	27000	7070	679	33	260	7.0	380	24	42000	5220	620	57
21	15500	3680	610	28	260	7.0	380	24	18000	1020	620	59
22	14000	3740	610	28	260	7.7	380	23	3500	151	620	59
23	13700	4180	532	23	280	9.8	380	24	400	14	620	60
24	14000	5180	610	28	300	13	380	24	400	15	650	65
25	12000	3990	13500	7520	300	13	380	23	500	24	622	60
26	11500	3320	3100	151	310	14	380	24	500	24	600	52
27	8500	2360	1060	27	310	14	380	23	600	32	600	53
28	8400	2270	900	16	320	16	380	24	800	58	610	56
29	8000	2050	6500	228	300	13	380	19	1000	84	600	53
30	6700	1390	10000	378	320	16	380	17	1000	84	600	50
31	---	---	600	13	---	---	295	17	1100	95	---	---
TOTAL	---	45366	---	12587	---	8748.6	---	665	---	189801	---	2122

TOTAL LOAD FOR YEAR: 3889510.6 TONS.

09368000 SAN JUAN RIVER AT SHIPROCK, NM

(National stream-quality accounting network,
surveillance network, and radiochemical network station)

LOCATION.--Lat 36°47'32", long 108°43'54", in NW¼ sec.27, T.30 N., R.18 W., San Juan County, Hydrologic Unit 14080105, on left bank 3 mi (5 km) west of Shiprock, 6 mi (10 km) downstream from Chaco River, and at mile 215.0 (345.9 km).

DRAINAGE AREA.--12,900 mi² (33,400 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January to October 1911, February 1927 to current year. Monthly or yearly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1243: 1931, 1934-38, 1951. WSP 1313: 1911, 1933. WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 4,848.68 ft (1,477.878 m) National Geodetic Vertical Datum of 1929 (river-profile survey). Prior to Apr. 6, 1922, nonrecording gage and Apr. 7, 1922, to Oct. 25, 1933, water-stage recorder, at site 3 mi (5 km) upstream at different datum. Oct. 26, 1933, to Sept. 30, 1936, water-stage recorder at present site at datum 3.31 ft (1.01 m) higher and Oct. 1, 1936, to Sept. 30, 1952, at datum 1.77 ft (0.54 m) higher. Supplementary water-stage recorders at nearby sites, same datum used at times.

REMARKS.--Water-discharge records good. Since 1962 flow partly regulated by Navajo Reservoir (station 09355100). Diversions for irrigation of about 118,000 acres (480 km²) above station. Ungaged canals bypass station on both right and left bank, though some of bypass flow is returned to river below gage.

AVERAGE DISCHARGE.--53 years (water years 1927-79), 2,185 ft³/s (61.88 m³/s), 1,583,000 acre-ft/yr (1.95 km³/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD (SINCE 1927).--Maximum discharge, about 80,000 ft³/s (2,270 m³/s) Aug. 11, 1929, gage height, 5.7 ft (1.73 m), site and datum then in use; minimum daily, 8 ft³/s (0.23 m³/s) Aug. 25, 26, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum flood occurred Oct. 6, 1911, and reached a stage of 22 ft (6.7 m), site and datum then in use.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Jan. 19	0115	7,520	213	6.14	1.871	May 25	1630	*14,300	405	8.54	2.603
Apr. 25	0845	7,690	218	6.99	2.131						

Minimum discharge, 276 ft³/s (7.82 m³/s) Sept. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	650	818	899	720	990	1250	5280	7330	11600	8560	5000	472
2	650	753	916	710	1000	1250	4930	7080	10300	8790	4700	484
3	615	1900	935	692	960	1250	4910	7210	9780	8740	4280	508
4	594	1100	892	794	930	1200	4890	6720	9340	8340	3970	472
5	504	1150	942	1030	950	1150	4980	6400	9570	8030	4060	442
6	566	1120	966	1040	936	1300	5240	7070	10400	7760	4060	448
7	622	1020	917	992	998	1600	5870	7800	12100	8130	3560	398
8	643	991	817	883	963	2200	6400	8370	11200	8250	3340	368
9	608	982	716	765	959	2900	6710	8460	11500	8420	3070	330
10	510	991	675	843	935	2310	6960	7450	10700	8320	2770	315
11	440	984	680	898	1080	1810	7060	6950	9180	8340	2610	283
12	380	1290	700	933	1240	1730	5450	6540	8990	8280	2430	280
13	405	1740	740	945	1310	2110	5070	6460	9670	8090	2610	276
14	356	1420	800	911	2190	2180	5660	6140	10600	8190	2710	279
15	344	1170	860	1020	2850	2450	6150	6630	10900	8150	2540	570
16	344	1200	880	910	4740	2450	6920	7740	10900	7990	2760	504
17	344	1100	880	1440	3500	3550	8280	8760	11300	7340	2660	504
18	388	955	1200	4620	2500	3780	8760	8760	10500	7000	2580	484
19	372	940	2300	5440	2000	3520	9140	8970	8940	6710	2340	569
20	396	941	2000	1990	1700	3580	9140	9960	7410	6510	1930	411
21	468	962	1400	1020	1500	3850	8540	10400	6890	6320	1690	454
22	830	1080	1000	900	1300	3700	8620	10100	7160	6280	1530	536
23	960	1080	880	860	1200	3420	9060	10900	8050	6270	1300	486
24	1120	1160	860	1050	1200	3260	9640	11500	8530	5990	1090	500
25	1370	2050	880	1030	1150	2960	9640	11300	8390	5900	904	565
26	1170	1970	850	1020	1200	3370	9080	11200	8170	5910	792	1050
27	963	1320	830	1000	1250	4280	8720	11100	8210	5760	704	1090
28	940	1060	820	950	1250	4740	8420	12900	8160	5600	606	1130
29	933	1010	880	1000	---	5370	8320	13700	8330	5570	442	1150
30	893	877	900	980	---	5480	8530	13300	8460	5460	472	1120
31	833	---	950	960	---	5280	---	13200	---	5360	496	---
TOTAL	20211	35134	29965	38346	42781	89280	216370	280400	285230	224360	74006	16478
MEAN	652	1171	967	1237	1528	2880	7212	9045	9508	7237	2387	549
MAX	1370	2050	2300	5440	4740	5480	9640	13700	12100	8790	5000	1150
MIN	344	753	675	692	930	1150	4890	6140	6890	5360	442	276
AC-FT	40090	69690	59440	76060	84860	177100	429200	556200	565800	445000	146800	32680

CAL YR 1978 TOTAL 455247 MEAN 1247 MAX 4400 MIN 110 AC-FT 903000
WTR YR 1979 TOTAL 1352561 MEAN 3706 MAX 13700 MIN 276 AC-FT 2683000

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1941-45, 1951 to current year.

PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE: February 1941 to September 1945, July 1957 to current year.
WATER TEMPERATURES: December 1950 to current year.
SUSPENDED SEDIMENT DISCHARGE: December 1950 to current year.

EXTREMES FOR PERIOD OF DAILY RECORD.--
SPECIFIC CONDUCTANCE (Water years 1957-79): Maximum daily, 4,360 micromhos July 31, 1959; minimum daily, 180 micromhos June 29, 30, 1979.
WATER TEMPERATURES: Maximum, 34.0°C July 20, 1968; minimum, 0.0°C on many days during winter months of most years.
SEDIMENT CONCENTRATIONS: Maximum daily, 114,000 mg/L Aug. 11, 1967; minimum daily, 2 mg/L May 4, 1963.
SEDIMENT LOADS: Maximum daily, 2,000,000 tons (1,810,000 tonnes) Aug. 11, 1967; minimum daily, 1 ton (.91 tonne) on several days during July and September 1959, September 1962, May and July 1963.

EXTREMES FOR CURRENT YEAR.--
SPECIFIC CONDUCTANCE: Maximum daily, 1,200 micromhos Jan. 18; minimum daily, 180 micromhos June 29, 30.
WATER TEMPERATURES: Maximum, 25.5°C Sept. 11; minimum, 0.0°C on many days during winter months.
SEDIMENT CONCENTRATIONS: Maximum daily, 44,300 mg/L Feb. 17; minimum daily, 95 mg/L Oct. 18, 19.
SEDIMENT LOADS: Maximum daily, 435,000 tons (395,000 tonnes) Feb. 16; minimum daily, 95 tons (86 tonnes) Oct. 19.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN DEMAND, CHEM-ICAL (HIGH LEVEL) (MG/L) (00340)	HARD-NESS (MG/L AS CACO3) (00900)
OCT 18...	1300	360	900	8.6	23.0	14.5	34	10.8	46	320
NOV 16...	0930	1440	780	8.1	2.0	4.0	31	11.1	7	280
DEC 20...	1200	2000	835	8.0	4.0	2.0	2700	12.2	59	230
JAN 24...	1400	1050	829	7.5	2.0	.5	31	12.4	25	290
FEB 21...	1400	1500	790	7.9	11.0	4.0	12000	10.6	240	170
MAR 14...	1200	2450	770	8.4	17.5	8.5	6300	10.5	160	240
APR 18...	1400	9080	420	8.1	27.0	10.0	930	10.3	83	150
MAY 23...	1000	11000	355	7.8	28.0	10.5	310	10.6	34	130
JUN 13...	0800	9580	302	8.2	23.5	12.5	65	9.6	75	120
JUL 25...	1335	5680	318	8.0	36.0	18.0	28	8.6	16	130
AUG 29...	1315	466	780	8.1	31.0	24.0	48	9.1	11	280
SEP 26...	1200	904	625	8.3	30.0	18.0	68	8.9	28	180

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)
OCT 18...	—	96	20	84	2.0	3.6	130	330	23	.8
NOV 16...	—	89	15	64	1.7	3.4	130	260	17	.4
DEC 20...	100	77	10	90	2.6	3.6	130	270	18	.4
JAN 24...	150	94	14	73	1.9	3.4	140	250	25	.4
FEB 21...	36	55	6.9	110	3.7	6.5	130	240	17	.5
MAR 14...	110	76	11	75	2.1	3.7	130	230	20	.7
APR 18...	63	43	10	21	.7	2.5	86	95	5.4	.2
MAY 23...	47	38	7.5	19	.7	2.3	79	77	6.0	.2
JUN 13...	44	35	6.8	14	.6	1.8	71	72	3.4	.3
JUL 25...	51	39	7.0	17	.7	2.6	75	77	5.3	.3
AUG 29...	160	84	17	68	1.8	3.5	120	260	24	.7
SEP 26...	82	52	12	53	1.7	2.7	97	170	13	.4

DATE	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L) (00530)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)
OCT 18...	7.5	659	--	54	.28	.36	.00	--	.96
NOV 16...	14	544	--	1100	.58	.60	.04	--	.84
DEC 20...	11	551	561	3980	.63	.57	.16	--	2.5
JAN 24...	10	557	556	966	.54	.50	.21	--	.73
FEB 21...	6.3	493	523	--	.60	.61	.09	--	11
MAR 14...	19	495	516	9700	.45	.50	.05	--	.24
APR 18...	8.2	253	238	2230	.22	.26	.05	--	2.3
MAY 23...	7.0	213	205	682	.13	.13	.15	--	.69
JUN 13...	7.2	184	184	148	.12	.07	.04	--	.48
JUL 25...	9.4	207	204	100	.16	.12	.01	--	.54
AUG 29...	9.3	552	540	91	.25	.28	.09	--	.82
SEP 26...	9.9	376	372	308	.12	.15	.04	.00	.58

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT									
18...	1.2	.050	.02	340	20	--	4.0	3.8	.8
NOV									
16...	1.5	.440	.01	230	20	--	8.7	7.9	3.1
DEC									
20...	3.3	1.70	.03	130	10	10	--	2.9	.3
JAN									
24...	1.5	.320	.04	150	20	--	7.8	3.1	.7
FEB									
21...	12	3.10	.04	110	20	60	--	4.9	--
MAR									
14...	.74	.040	.04	160	20	--	26	4.0	.7
APR									
18...	2.5	.780	.04	40	10	--	24	3.2	1.0
MAY									
23...	.97	.350	.00	50	30	20	--	3.2	--
JUN									
13...	.64	.090	.00	50	10	--	5.2	5.1	.9
JUL									
25...	.71	.080	.01	60	260	--	4.8	5.3	.5
AUG									
29...	1.2	.100	.03	10	10	20	--	15	.9
SEP									
26...	.74	.190	.01	170	10	--	8.6	4.5	.7

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
DEC										
20...	1200	8	1	800	0	130	1	0	30	0
FEB										
21...	1400	54	8	5400	0	110	1	0	180	10
MAY										
23...	1000	2	1	500	100	50	1	0	20	0
AUG										
29...	1315	1	1	100	100	10	2	1	20	20

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
DEC									
20...	23	2	88	4	57000	10	--	1	1500
FEB									
21...	200	0	580	4	350000	20	--	0	12000
MAY									
23...	7	0	50	1	15000	30	120	0	1100
AUG									
29...	3	0	13	6	1800	10	11	0	90

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
DEC									
20...	10	.1	.0	3	1	1	0	280	10
FEB									
21...	60	.5	.0	10	3	4	0	1300	90
MAY									
23...	20	.0	.1	1	1	0	0	340	10
AUG									
29...	20	.6	.4	4	3	0	0	30	4

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)
AUG						
29...	1315	0	4	4	6	.00

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	SOLIDS, RESIDUE AT 105 DEG. C, SUSPENDED (MG/L) (00530)	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DISSOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DISSOLVED, EXTRACTION (UG/L) (80020)
OCT										
18...	1300	54	<8.3	1.4	4.5	2.1	4.2	2.0	.09	3.7
MAY										
23...	1000	682	7.0	57	2.9	28	2.7	26	.08	1.4

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOTTOM MATERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39333)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOTTOM MATERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)	DDE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39368)
AUG									
29...	1315	.0	0	.00	.0	.00	.0	.00	.0

DATE	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOTTOM MATERIAL (UG/KG) (39373)	DIELDRIN TOTAL (UG/L) (39380)	DIELDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39383)	ENDOSULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOTTOM MATERIAL (UG/KG) (39393)	HEPTACHLOR, TOTAL (UG/L) (39410)	HEPTACHLOR, TOTAL IN BOTTOM MATERIAL (UG/KG) (39413)
AUG									
29...	.00	.0	.00	.0	.00	.00	.0	.00	.0

DATE	HEPTACHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTACHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOTTOM MATERIAL (UG/KG) (39343)	METHOXYCHLOR, TOT. IN BOTTOM MATL. (UG/KG) (39481)	TOXAPHENE, TOTAL (UG/L) (39400)	TOXAPHENE, TOTAL IN BOTTOM MATERIAL (UG/KG) (39403)	PERTHANE TOTAL (UG/L) (39034)	MIREX, TOTAL (UG/L) (39755)
AUG									
29...	.00	.0	.00	.0	.0	0	0	.00	.00

Results of Analysis of Water and Bed Materials for Selected Chlorinated Hydrocarbon Isomers

Date	Time	o-p'-DDE	o-p'-DDD	o-p'DDT	cis-chlordane	trans-chlordane	∝-BHC	Hexachlorobenzene	cis-nonachlor
Aug									
29	1315 (w)	0	0	0	0	0	0	0	0
	(s)	0	0	0	0	0	0	0	0

NOTE: Reporting units are ug/L for water samples (w) and ug/kg for bed material sediment samples (s). The lowest detectable limit is 0.01 ug/L for water samples and 0.1 ug/kg for sediment samples.

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
18...	1300	110	460
NOV			
16...	0930	89	920
DEC			
20...	1200	300	8000
JAN			
24...	1400	0	5000
FEB			
21...	1400	400	65000
MAR			
14...	1200	1000	3800
APR			
18...	1400	500	800
MAY			
23...	1000	230	1500
JUN			
13...	0800	150	220
JUL			
25...	1335	10	50
AUG			
29...	1315	100	100
SEP			
26...	1200	600	360

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	NOV 16,78	DEC 20,78	MAR 14,79	MAY 23,79
TIME	0930	1200	1200	1000
TOTAL CELLS/ML	450	630	510	190
DIVERSITY: DIVISION	0.0	1.0	0.0	0.0
.CLASS	0.0	1.0	0.0	0.0
..ORDER	0.0	1.0	0.0	0.0
...FAMILY	2.5	1.0	0.0	0.0
....GENUS	3.0	1.0	0.0	0.0

ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	--	-	--	-
....TETRAEDRON	--	-	--	-	--	-	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	--	-	--	-	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	--	-	--	-	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	320#	50	--	-	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	--	-	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	--	-	--	-
....CYMBELLA	--	-	--	-	--	-	--	-
....EPITHEMIA	28	6	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	84#	19	--	-	--	-	--	-
...FRAGILARIACEAE								
....FRAGILARIA	--	-	--	-	--	-	--	-
....SYNEDRA	28	6	--	-	--	-	--	-
...GOMPHONEMATACEAE								
....GOMPHONEMA	28	6	--	-	--	-	--	-
...NAVICULACEAE								
....GYROSIGMA	56	13	--	-	--	-	--	-
....NAVICULA	56	13	--	-	--	-	--	-
....PINNULARIA	28	6	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	110#	25	--	-	--	-	190#	100
...SURIRELLACEAE								
....SURIRELLA	28	6	--	-	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	320#	50	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	--	-	--	-	--	-
....SCHIZOTHRIX	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	510#	100	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	JUN 13,79	JUL 25,79	AUG 29,79	SEP 26,79
TIME	0800	1335	1315	1200
TOTAL CELLS/ML	190	720	2000	1700
DIVERSITY: DIVISION	0.0	1.0	1.3	0.0
.CLASS	0.0	1.0	1.3	0.0
..ORDER	0.0	1.0	1.4	0.0
...FAMILY	1.2	1.4	2.3	1.4
....GENUS	1.2	1.4	2.3	1.4

ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...OOCYSTACEAE								
....ANKISTRODESMUS	--	-	--	-	110	6	--	-
....TETRAEDRON	--	-	--	-	13	1	--	-
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	--	-	50	2	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	13	2	50	2	--	-
..ZYGNEMATALES								
...DESMIDIACEAE								
....COSMARIUM	--	-	--	-	13	1	--	-
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	--	-	13	1	--	-
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	13	2	--	-	--	-
....RHOICOSPHENIA	--	-	--	-	38	2	--	-
...CYMBELLACEAE								
....AMPHORA	--	-	--	-	13	1	--	-
....CYMBELLA	--	-	--	-	13	1	--	-
....EPITHEMIA	--	-	--	-	--	-	--	-
...DIATOMACEAE								
....DIATOMA	26	13	--	-	--	-	620#	36
...FRAGILARIACEAE								
....FRAGILARIA	140#	73	--	-	--	-	--	-
....SYNEDRA	--	-	13	2	76	4	77	5
...GOMPHONEMATACEAE								
....GOMPHONEMA	--	-	--	-	--	-	--	-
...NAVICULACEAE								
....GYROSIGMA	--	-	--	-	--	-	--	-
....NAVICULA	13	7	26	4	190	9	930#	55
....PINNULARIA	--	-	--	-	--	-	--	-
...NITZSCHIACEAE								
....NITZSCHIA	13	7	130#	18	940#	47	77	5
...SURIRELLACEAE								
....SURIRELLA	--	-	13	2	--	-	--	-
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOCHRYSIDACEAE								
....CHROOMONAS	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..HORMOGONALES								
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	520#	71	--	-	--	-
....SCHIZOTHRIX	--	-	--	-	490#	24	--	-
EUGLENOPHYTA (EUGLENOIDS)								
.EUGLENOPHYCEAE								
..EUGLENALES								
...EUGLENACEAE								
....EUGLENA	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PERIPHYTON

DATE	TIME	LENGTH OF EXPOSURE (DAYS) (00022)	PERIPHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERIPHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERIPHYTON CHROMOGRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLOROPHYLL RATIO PERIPHYTON (UNITS) (70950)	SAMPLE METHOD
OCT								
18...	1300	28	19.7	17.7	29.2	6.55	--	Polyethyelene strip
NOV								
16...	0930	30	.315	.157	.000	.000	--	"
SEP								
26...	1200	29	112	107	14.3	1.10	350	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .008 MM (70339)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .031 MM (70341)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)
OCT											
18...	1300	360	14.5	96	93	--	--	--	--	--	--
23...	1825	1090	14.0	4070	12000	67	74	--	82	--	97
NOV											
01...	1132	830	10.0	11200	25100	64	76	--	93	--	98
16...	0930	1440	4.0	2990	11600	--	--	--	--	--	--
DEC											
20...	1200	2000	2.0	7100	38300	45	53	--	60	--	70
JAN											
21...	1400	1600	1.0	24700	107000	14	15	--	17	--	21
24...	1400	1050	.5	2500	7090	31	33	--	37	--	46
FEB											
21...	1400	1500	4.0	21100	85500	49	56	--	67	--	86
MAR											
03...	1700	1250	6.0	9920	33500	25	28	--	36	--	54
14...	1200	2450	8.5	17100	113000	34	40	--	49	--	73
APR											
08...	1640	6290	10.0	5560	94400	26	30	--	40	--	60
18...	1400	9080	10.0	3680	90200	25	30	--	41	--	64
MAY											
01...	1740	7300	11.0	2890	57000	6	8	9	10	13	20
23...	1000	11000	10.5	1370	40700	11	13	--	20	--	44
JUN											
13...	0800	9580	12.5	784	20300	9	10	11	14	19	28
JUL											
25...	1335	5680	18.0	505	7750	--	--	--	--	--	19
AUG											
19...	1530	2340	18.5	7210	45600	59	73	--	85	--	91
29...	1315	466	24.0	99	125	62	65	72	77	82	--
SEP											
26...	1200	904	18.0	385	940	26	32	39	48	60	--

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	SED. SUSP. FALL DIAM. % FINER THAN 2.00 MM (70347)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)	SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM (70334)	SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM (70335)
OCT										
18...	--	--	--	--	--	73	--	--	--	--
23...	99	100	--	--	--	--	--	--	--	--
NOV										
01...	100	--	--	--	--	--	--	--	--	--
16...	--	--	--	--	--	42	--	--	--	--
DEC										
20...	83	94	100	--	--	--	--	--	--	--
JAN										
21...	26	33	88	100	--	--	--	--	--	--
24...	78	99	100	--	--	--	--	--	--	--
FEB										
21...	95	100	--	--	--	--	--	--	--	--
MAR										
03...	71	87	99	100	--	--	--	--	--	--
14...	86	91	99	100	--	--	--	--	--	--
APR										
08...	75	90	100	--	--	--	--	--	--	--
18...	79	93	99	100	--	--	--	--	--	--
MAY										
01...	32	65	90	99	100	--	--	--	--	--
23...	59	80	99	100	--	--	--	--	--	--
JUN										
13...	44	68	99	100	--	--	--	--	--	--
JUL										
25...	27	45	97	100	--	--	--	--	--	--
AUG										
19...	95	98	100	--	--	--	--	--	--	--
29...	--	--	--	--	--	91	94	98	100	--
SEP										
26...	--	--	--	--	--	80	90	96	99	100

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	777	910	797	830	759	772	467	392	314	287	331	819
2	782	904	798	828	752	786	452	381	333	284	336	818
3	878	913	798	807	725	815	451	359	324	283	339	756
4	919	909	797	815	724	782	461	369	324	292	348	749
5	910	916	915	1170	729	784	453	373	306	290	342	749
6	912	823	910	1180	736	777	459	363	311	309	339	772
7	912	817	885	1190	730	772	453	353	317	309	362	797
8	912	893	889	1190	727	767	438	339	317	324	372	799
9	903	899	906	1190	732	798	441	360	314	299	481	818
10	890	881	908	734	714	863	450	370	330	297	412	855
11	910	865	910	738	715	746	427	377	317	297	420	---
12	1090	861	910	734	782	780	435	387	320	302	420	894
13	919	876	900	731	1040	706	431	392	295	317	415	881
14	919	787	903	760	831	710	428	385	287	309	435	849
15	914	819	911	756	723	718	446	379	281	302	473	985
16	910	799	905	757	853	641	436	354	276	310	658	793
17	912	807	785	---	878	575	430	351	270	319	707	801
18	---	809	801	---	799	606	423	345	265	340	542	775
19	---	804	788	---	768	553	414	340	291	324	585	757
20	865	800	797	776	770	600	403	320	319	324	537	771
21	894	842	799	747	782	659	387	329	324	325	519	---
22	892	835	821	799	799	632	377	317	323	325	534	751
23	971	839	817	833	782	587	372	338	284	319	625	---
24	935	847	811	781	782	556	366	320	283	---	581	754
25	935	849	819	738	772	567	371	335	285	322	711	754
26	935	834	817	777	799	560	361	329	285	316	696	715
27	807	852	789	716	768	518	364	311	303	325	---	---
28	---	802	794	686	793	487	369	360	297	328	---	---
29	807	811	835	734	---	508	365	318	327	325	816	---
30	783	847	834	713	---	453	362	303	284	321	814	---
31	896	---	830	717	---	458	---	291	---	331	812	---
MEAN	896	848	844	837	777	662	416	350	304	312	516	801

WTR YR 1979 MEAN 624 MAX 1190 MIN 265

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C) RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		OCTOBER			NOVEMBER			DECEMBER			JANUARY	
1	865	825	846	940	900	916	975	970	973	880	850	868
2	875	840	857	990	950	973	990	980	983	900	865	887
3	930	870	891	995	915	951	1000	985	992	920	900	909
4	960	915	933	1110	935	1020	995	985	990	925	890	914
5	985	945	966	1160	1120	1150	995	980	985	890	825	870
6	1000	970	987	1140	985	1070	985	980	983	825	790	798
7	985	935	951	980	930	948	990	955	972	800	785	796
8	965	930	950	965	945	955	960	950	957	815	800	806
9	950	925	938	995	960	972	955	940	945	845	810	826
10	975	930	948	1000	980	994	945	945	945	845	815	828
11	1000	960	979	980	945	959	950	935	945	830	815	823
12	1040	990	1000	950	940	945	940	930	935	820	805	813
13	1070	1040	1050	960	945	955	940	930	934	805	785	796
14	1060	1030	1050	980	960	975	940	870	915	800	785	789
15	1070	1040	1050	1000	980	989	865	845	858	810	795	804
16	1080	1060	1070	995	930	952	845	810	821	815	785	796
17	1080	1060	1070	965	950	959	815	800	807	1010	820	881
18	1070	1030	1050	965	940	954	835	795	806	1200	855	961
19	1040	970	1000	940	915	926	860	770	805	840	790	799
20	1000	975	995	930	915	921	855	825	850	790	770	779
21	985	920	936	935	915	928	855	845	850	780	775	778
22	935	875	912	965	935	946	860	855	857	805	780	787
23	1030	910	990	975	950	964	865	850	859	815	805	808
24	1030	1000	1020	945	915	926	850	845	847	835	820	828
25	1000	900	948	1000	900	946	855	840	844	865	835	847
26	985	925	954	965	960	964	850	835	840	980	870	906
27	990	945	969	970	965	966	845	835	841	1050	980	1010
28	940	895	905	970	965	967	850	835	843	1080	1050	1060
29	905	890	897	975	960	966	845	820	831	1080	1060	1070
30	915	900	907	975	960	970	850	835	842	1070	980	1050
31	925	905	916	---	---	---	860	835	846	975	870	919
MONTH	1080	825	966	1160	900	968	1000	770	894	1200	770	865

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		FEBRUARY			MARCH			APRIL			MAY	
1	870	805	833	850	840	843	980	970	976	325	310	316
2	810	800	805	840	825	829	975	965	969	340	320	324
3	825	790	813	825	810	821	970	965	966	320	315	316
4	800	790	793	825	815	820	970	950	966	330	315	319
5	815	795	807	830	820	824	975	970	971	330	325	328
6	820	810	815	835	830	830	985	975	980	325	315	319
7	830	815	822	840	820	831	985	960	975	315	295	303
8	820	790	802	840	810	829	960	875	922	295	285	290
9	800	780	792	835	825	830	870	780	809	315	295	305
10	790	770	783	830	825	826	805	785	795	330	315	320
11	810	785	794	830	825	828	810	805	806	335	325	330
12	885	815	844	835	820	829	810	790	796	335	330	333
13	1040	890	920	830	815	822	805	785	796	340	335	335
14	1100	1050	1080	815	725	797	785	775	778	340	330	335
15	1080	840	938	775	740	757	790	770	782	335	325	330
16	840	810	817	740	720	731	770	615	693	325	305	313
17	810	805	808	720	705	714	615	585	599	305	295	296
18	805	795	801	720	705	717	625	530	596	295	290	293
19	805	790	794	720	715	718	515	385	424	295	280	288
20	800	775	788	725	720	721	400	375	389	295	270	279
21	785	775	781	735	725	727	400	350	378	290	275	281
22	795	780	787	740	730	733	390	345	365	280	270	276
23	805	790	795	790	720	761	400	325	356	320	280	305
24	820	800	810	835	795	816	335	320	323	320	290	305
25	855	820	834	870	840	855	330	310	316	360	295	315
26	865	860	863	905	870	891	320	310	315	350	295	309
27	870	855	865	935	910	925	325	310	316	305	295	298
28	865	845	856	955	935	948	325	315	322	380	305	331
29	---	---	---	975	955	966	335	315	321	330	280	293
30	---	---	---	985	975	981	320	310	312	285	270	275
31	---	---	---	985	980	983	---	---	---	275	265	271
MONTH	1100	770	830	985	705	823	985	310	644	380	265	307

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

SPECIFIC CONDUCTANCE (MICROMHOS/CM AT 25 DEG. C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN JUNE	MEAN	MAX	MIN JULY	MEAN	MAX	MIN AUGUST	MEAN	MAX	MIN SEPTEMBER	MEAN
1	285	275	279	190	185	188						
2	340	285	299	195	190	192						
3	330	295	303	195	190	191						
4	325	300	308	195	190	191						
5	300	285	289	195	190	193						
6	290	275	281	200	190	195						
7	280	265	272	270	200	230						
8	265	260	261	270	265	270						
9	270	255	263	270	260	268						
10	290	270	279	280	270	274						
11	300	290	293	280	275	278						
12	300	285	292	295	280	284						
13	290	265	274	300	285	292						
14	275	270	271	290	280	285						
15	270	260	263	290	280	284						
16	260	240	248	295	280	287						
17	245	230	237	295	285	290						
18	235	225	229	455	290	349						
19	235	230	231	385	340	355						
20	245	235	240	385	370	380						
21	250	245	247	390	365	377						
22	245	230	238	365	340	352						
23	230	210	219	340	320	330						
24	215	205	209	330	280	291						
25	210	200	205	775	205	344						
26	215	195	203	305	295	299						
28	195	190	193	295	285	291						
30	185	180	183	300	290	295						
31	---	---	---	300	295	298						
MONTH	340	180	250	775	185	282						
YEAR	1200	5	646									

TEMPERATURE, WATER (DEG. C), WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
ONCE-DAILY

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	19.0	10.0	4.0	.0	1.0	5.0	6.0	11.0	11.0	16.0	18.0	23.0
2	17.0	12.0	4.0	.0	3.0	7.0	5.0	10.0	10.5	15.5	18.0	24.0
3	18.0	14.0	2.0	1.0	3.0	6.0	7.0	11.0	12.5	14.0	19.0	24.0
4	21.0	12.0	2.0	.0	1.0	6.0	7.0	9.0	12.0	15.0	19.5	24.5
5	22.0	10.0	1.0	1.0	.0	7.0	9.0	9.5	12.5	11.0	20.0	24.0
6	18.0	12.0	.0	2.0	.0	7.0	10.0	11.0	12.0	14.5	20.0	24.5
7	23.0	11.0	.0	1.0	2.0	10.0	10.0	10.5	13.0	15.5	20.5	25.0
8	21.0	11.0	.0	1.0	2.0	9.0	10.0	8.5	13.0	17.0	21.0	25.0
9	17.0	11.0	3.0	.0	4.0	7.0	9.0	8.0	13.0	15.5	21.0	24.0
10	17.0	11.0	2.0	.0	5.0	6.0	7.0	9.0	10.0	16.0	21.0	20.0
11	18.0	9.0	.0	1.0	5.0	7.0	6.0	10.0	13.0	16.0	22.0	25.5
12	18.0	10.0	.0	2.0	5.0	8.0	7.0	8.5	14.0	16.5	22.0	24.0
13	2.0	8.0	2.0	2.0	5.0	9.0	9.0	9.5	13.5	16.5	21.0	22.0
14	.0	8.0	.0	1.0	5.0	7.5	10.0	12.0	13.5	17.0	19.5	21.5
15	20.0	5.0	.0	3.0	4.0	9.0	10.5	11.5	15.0	17.0	17.0	7.0
16	.0	7.0	1.0	4.0	4.0	8.5	11.0	11.5	14.5	17.0	18.0	19.0
17	18.0	9.0	.0	---	4.0	6.0	11.0	12.0	13.5	17.0	18.0	21.0
18	---	10.0	2.0	---	3.0	7.0	12.0	12.0	12.0	16.0	18.0	22.5
19	---	8.0	.0	---	3.0	6.0	9.5	13.0	12.0	16.0	18.5	22.0
20	16.0	7.0	.0	.0	5.0	6.0	9.5	20.0	15.0	17.0	18.5	19.0
21	17.0	4.0	.0	1.0	3.0	6.0	8.0	19.0	13.0	16.0	21.0	---
22	12.0	8.0	1.0	.0	5.0	6.0	10.5	13.0	15.0	16.0	22.0	22.0
23	14.0	9.0	1.0	.0	4.0	7.5	10.0	13.0	15.0	16.5	23.0	---
24	16.0	8.0	3.0	.0	5.0	8.0	10.0	13.0	15.0	---	22.5	22.0
25	14.0	6.0	2.0	1.0	6.0	10.0	10.0	13.0	15.0	17.0	23.0	22.0
26	12.0	5.0	1.0	2.0	6.0	10.0	10.0	12.0	16.0	18.0	24.0	20.5
27	15.0	7.0	4.0	1.0	6.0	7.0	11.0	12.0	15.0	17.0	---	20.5
28	---	5.0	3.0	.0	7.0	6.0	11.0	13.0	15.5	18.0	---	20.0
29	16.0	5.0	1.0	.0	---	6.0	11.0	14.0	15.0	19.0	24.5	19.0
30	11.0	4.0	.0	.0	---	7.0	11.0	13.0	15.0	18.0	25.0	17.0
31	14.0	---	.0	.0	---	7.0	---	11.0	---	18.0	24.5	---
MEAN	15.0	8.5	1.5	1.0	4.0	7.0	9.5	11.5	13.5	16.5	20.5	21.5

WTR YR 1979 MEAN 11.0 MAX 25.5 MIN .0

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

TEMPERATURE, WATER (DEG. C), RECORDER MAXIMUM, MINIMUM, AND MEAN,
WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	OCTOBER			NOVEMBER			DECEMBER			JANUARY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	13.0	10.5	12.0	4.5	3.0	4.0	2.0	---	---
2	---	---	---	13.5	11.0	12.0	4.5	3.5	4.5	.0	---	---
3	---	---	---	13.0	10.5	11.5	3.0	.5	2.0	.5	.0	.0
4	---	---	---	11.0	9.5	10.0	2.0	---	---	.5	---	---
5	---	---	---	11.5	9.5	10.5	2.5	---	---	.5	---	---
6	---	---	---	11.0	8.5	9.5	2.5	1.0	1.5	1.0	---	---
7	---	---	---	10.5	7.0	9.0	1.0	---	---	2.5	.0	1.0
8	---	---	---	10.5	7.0	8.5	.0	---	---	.0	---	---
9	---	---	---	10.5	7.0	9.0	.0	---	---	---	---	---
10	---	---	---	9.0	7.5	8.5	---	---	---	.5	---	---
11	---	---	---	10.0	8.5	9.0	---	---	---	1.0	---	---
12	---	---	---	10.0	6.5	9.0	.5	---	---	1.0	.5	.5
13	---	---	---	7.5	5.5	6.0	.5	.0	.0	1.0	---	---
14	---	---	---	8.0	5.0	6.5	.5	---	---	---	---	---
15	---	---	---	6.5	5.5	6.0	.5	---	---	2.0	---	---
16	---	---	---	6.5	3.5	5.0	.0	---	---	4.0	2.0	3.0
17	---	---	---	6.5	3.5	5.0	.0	---	---	4.0	2.5	3.5
18	15.5	13.5	14.5	6.5	3.5	5.0	.5	.0	.0	3.0	1.5	2.0
19	16.0	11.0	13.5	7.0	3.5	5.0	1.5	.0	1.0	2.0	1.0	1.5
20	14.5	11.5	12.5	6.5	3.5	5.0	1.5	---	---	1.0	---	---
21	12.5	11.5	12.0	7.0	4.5	6.0	---	---	---	1.0	1.0	1.0
22	12.5	11.0	12.0	7.5	6.0	6.5	.0	---	---	1.5	1.0	1.0
23	13.5	11.0	12.5	8.0	6.5	7.0	.5	---	---	1.0	.5	.5
24	12.5	11.5	12.0	7.0	6.5	6.5	1.0	---	---	.5	.5	.5
25	12.5	9.5	11.0	7.0	6.0	6.5	1.5	---	---	1.5	---	---
26	11.5	7.5	9.5	6.5	5.5	6.0	.5	---	---	2.0	.5	1.0
27	11.5	7.5	9.5	5.5	4.0	4.5	1.0	---	---	1.5	---	---
28	12.0	8.0	10.0	4.5	2.5	3.5	2.5	.0	1.5	---	---	---
29	12.5	8.0	10.5	4.0	2.5	3.0	3.5	2.0	3.0	.0	---	---
30	12.0	9.5	11.0	5.0	1.5	3.5	4.0	2.5	3.0	---	---	---
31	13.0	9.5	11.0	---	---	---	3.5	2.0	2.5	---	---	---
MONTH	16.0	7.5	11.5	13.5	1.5	7.0	4.5	.0	2.0	4.0	.0	1.5

DAY	FEBRUARY			MARCH			APRIL			MAY		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	1.5	---	---	5.5	4.0	5.0	5.5	4.0	5.0	11.0	9.0	10.0
2	3.0	---	---	6.0	4.0	5.0	5.5	4.0	5.0	11.0	9.0	10.0
3	2.5	.0	1.0	6.0	3.0	4.5	6.5	4.0	5.5	10.5	8.5	9.5
4	1.0	---	---	5.5	2.0	3.5	7.0	5.0	6.0	10.5	8.0	9.5
5	.0	---	---	7.0	2.0	4.5	8.0	5.5	7.0	11.0	9.5	10.5
6	.5	---	---	8.0	3.5	5.5	9.5	7.0	8.0	12.0	10.0	11.0
7	1.0	---	---	10.0	5.0	7.0	9.5	7.5	8.5	11.0	9.5	10.0
8	2.5	---	---	10.0	6.0	7.5	9.5	7.5	8.5	9.5	7.5	8.5
9	4.0	.0	2.0	7.5	5.0	6.5	9.0	7.5	8.5	7.5	6.0	7.0
10	4.5	1.0	2.5	6.5	3.0	5.0	7.5	5.5	7.0	8.5	6.0	7.0
11	5.0	1.5	3.0	8.0	3.5	5.5	5.5	4.5	5.0	9.5	6.5	8.0
12	4.5	1.5	3.0	8.5	4.5	6.5	6.5	4.0	5.5	10.5	8.0	9.5
13	6.5	2.0	4.0	9.0	5.0	7.0	8.0	5.0	6.5	11.0	9.0	10.0
14	5.0	2.5	3.5	8.5	6.5	7.0	9.5	7.0	8.0	12.0	9.5	11.0
15	4.0	2.5	3.5	9.0	6.0	7.0	10.5	8.0	9.0	11.5	10.5	11.0
16	3.5	2.0	3.0	8.5	6.5	7.5	10.5	8.5	9.5	11.0	10.0	10.5
17	3.0	2.0	2.5	6.5	5.0	6.0	10.0	9.0	9.5	11.5	10.0	10.5
18	3.5	1.5	2.5	6.5	3.5	5.0	9.5	8.0	9.0	11.5	9.0	10.5
19	3.0	2.0	2.5	6.0	5.5	5.5	9.5	8.0	9.0	12.0	10.5	11.5
20	5.0	2.0	3.5	5.5	5.0	5.5	9.0	7.0	8.0	11.5	10.5	11.0
21	4.5	3.5	4.0	6.5	5.0	5.5	9.5	7.5	8.5	12.5	9.5	11.0
22	4.0	2.5	3.5	6.0	4.5	5.0	11.0	8.5	10.0	12.5	9.5	11.0
23	4.5	2.5	3.5	8.0	4.5	6.0	10.5	9.0	10.0	12.5	10.0	11.0
24	5.5	2.0	3.5	8.5	5.0	6.5	10.0	8.5	9.0	12.5	10.5	11.5
25	6.0	2.0	4.0	9.0	6.0	7.5	9.5	8.0	9.0	12.5	10.0	11.0
26	5.5	3.5	4.5	9.5	6.5	8.0	9.5	9.0	9.5	12.0	10.5	11.5
27	6.5	3.5	4.5	8.0	6.0	7.0	10.5	8.5	9.5	13.0	10.5	11.5
28	6.5	3.0	4.5	6.0	5.5	6.0	11.0	9.5	10.5	13.5	11.5	12.5
29	---	---	---	6.0	5.0	5.5	11.0	9.0	10.0	14.0	11.5	12.5
30	---	---	---	7.5	4.5	6.0	11.0	9.5	10.0	13.0	11.0	12.0
31	---	---	---	7.0	5.5	6.5	---	---	---	12.5	10.5	11.5
MONTH	6.5	.0	3.5	10.0	2.0	6.0	11.0	4.0	8.0	14.0	6.0	10.5

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

TEMPERATURE, WATER (DEG. C), RECORDER MAXIMUM, MINIMUM, AND MEAN, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
		JUNE			JULY			AUGUST			SEPTEMBER	
1	12.5	10.0	11.5	14.0	13.0	13.5	17.5	15.5	16.0	20.5	19.0	20.0
2	12.0	10.0	11.0	14.0	12.5	13.5	17.5	15.5	16.5	20.5	19.5	20.0
3	13.0	11.0	12.0	14.0	12.5	13.5	17.5	15.5	16.5	20.5	19.5	20.0
4	13.0	11.5	12.0	13.5	12.0	12.5	18.5	16.0	17.0	20.5	19.5	20.0
5	13.5	11.5	12.5	14.5	12.5	13.5	18.5	16.5	17.5	20.5	19.0	19.5
6	13.5	11.0	12.5	15.0	14.0	14.5	18.5	16.5	17.5	21.0	18.5	19.5
7	14.5	12.5	13.5	15.5	13.0	14.5	19.0	16.5	18.0	20.5	18.0	20.0
8	13.0	11.5	12.0	15.0	14.0	14.5	19.5	17.0	18.0	21.0	18.5	20.0
9	12.0	9.0	10.5	15.0	13.5	14.0	19.5	17.5	18.5	22.0	17.0	19.5
10	12.5	10.0	11.5	15.5	14.0	14.5	19.5	18.0	18.5	21.5	16.5	19.0
11	13.5	11.5	12.5	15.5	14.0	14.5	20.0	18.0	19.0	21.0	15.5	18.0
12	14.0	12.5	13.5	15.0	14.0	14.5	20.0	18.5	19.0	21.5	15.5	18.0
13	14.0	12.5	13.5	15.5	14.5	15.0	19.0	18.0	18.5	20.0	13.5	16.5
14	14.0	12.5	13.5	16.0	14.5	15.5	19.0	18.0	18.5	18.5	13.0	15.5
15	14.5	12.0	13.5	16.0	15.0	15.5	18.5	16.5	17.0	16.0	14.5	15.5
16	14.0	12.0	13.0	16.5	15.0	15.5	17.0	16.0	16.5	17.5	15.0	16.0
17	13.5	11.5	12.5	16.0	15.0	15.5	17.0	16.5	17.0	18.0	16.5	17.0
18	13.0	11.0	12.0	16.0	15.5	15.5	17.0	16.5	17.0	19.0	17.0	18.0
19	12.5	10.5	11.5	15.5	14.5	15.0	17.0	16.0	16.5	19.0	17.5	18.5
20	13.0	11.0	12.0	16.0	15.0	15.5	18.0	17.0	17.5	18.5	16.0	17.5
21	14.0	12.5	13.0	15.5	15.5	15.5	18.5	17.0	18.0	18.5	16.5	17.0
22	14.5	13.0	13.5	15.5	14.5	15.0	19.0	17.5	18.5	18.5	17.5	18.0
23	14.0	13.0	13.5	16.0	15.0	15.5	20.0	18.0	19.0	18.5	17.5	18.0
24	14.5	13.0	14.0	16.5	15.0	15.5	20.0	18.5	19.0	18.5	17.5	18.0
25	14.5	13.5	14.0	17.0	15.0	16.0	20.0	18.5	19.0	18.5	17.5	18.0
26	14.5	14.0	14.5	17.0	15.5	16.0	21.0	19.0	20.0	18.5	17.5	18.0
27	15.0	13.5	14.5	17.5	15.5	16.5	21.5	19.5	20.5	---	---	---
28	14.5	13.5	14.0	17.5	16.0	16.5	21.5	19.5	20.5	---	---	---
29	15.0	13.5	14.5	18.0	16.5	17.0	21.0	19.0	20.0	---	---	---
30	14.5	13.0	13.5	17.5	16.0	16.5	20.5	19.5	20.0	---	---	---
31	---	---	---	17.5	15.5	16.5	21.0	19.5	20.0	---	---	---
MONTH	15.0	9.0	13.0	18.0	12.0	15.0	21.5	15.5	18.0	22.0	13.0	18.5
YEAR	22.0	.0	10.5									

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN-TRATION (MG/L)	LOADS (T/DAY)
	OCTOBER		NOVEMBER		DECEMBER		JANUARY		FEBRUARY		MARCH	
1	519	911	421	930	383	930	241	469	9170	24500	12800	43200
2	292	512	439	893	290	717	237	454	9010	24300	12200	41200
3	231	384	398	2040	357	901	156	291	14600	37800	10200	34400
4	336	539	383	1140	348	838	143	307	17200	43200	7620	24700
5	167	227	395	1230	199	506	241	670	7710	19800	8310	25800
6	128	196	923	2790	129	336	280	786	12700	32100	7490	26300
7	195	327	1200	3300	135	334	262	702	24000	64700	7930	34300
8	169	293	855	2290	128	282	370	882	15600	40600	15300	90900
9	195	320	623	1650	126	244	408	843	18800	48700	31900	250000
10	156	215	552	1480	134	244	956	2180	12800	32300	33000	206000
11	128	152	525	1390	114	209	261	633	9540	27800	20700	101000
12	134	137	2490	8670	180	340	309	778	3900	13100	15500	72400
13	112	122	9410	44200	185	370	254	648	11100	39300	17000	96800
14	105	101	2210	8470	129	279	218	536	19000	112000	17300	102000
15	106	98	1160	3660	181	420	201	554	24700	190000	17000	112000
16	120	111	1890	6120	208	494	191	469	34000	435000	16000	106000
17	109	101	865	2570	210	499	2000	7780	44300	419000	14400	138000
18	95	100	650	1680	2500	8100	10000	125000	38700	261000	13300	136000
19	95	95	649	1650	8000	49700	12000	176000	28500	154000	9750	92700
20	600	642	525	1330	7100	38300	14200	76300	25000	115000	7600	73500
21	1450	1830	450	1170	3000	11300	24700	68000	22300	90300	10300	107000
22	2000	4480	451	1320	2000	5400	3040	7390	18800	66000	11200	112000
23	3170	8220	498	1450	1720	4090	3400	7890	9400	30500	8500	78500
24	3960	12000	503	1580	1690	3920	3800	10800	7730	25000	7100	62500
25	4570	16900	4260	26100	1070	2540	3130	8700	9250	28700	5850	46800
26	4740	15000	5950	31600	734	1680	9560	26300	6910	22400	7500	68200
27	1320	3430	5140	18300	636	1430	7070	19100	8710	29400	10700	124000
28	406	1030	2250	6440	598	1320	22700	58200	11700	39500	7050	90200
29	388	977	2150	5860	281	668	7030	19000	---	---	7450	108000
30	445	1070	952	2250	229	556	4070	10800	---	---	5790	85700
31	452	1020	---	---	286	734	2630	6820	---	---	5000	71300
TOTAL	---	71540	---	193553	---	137681	---	639282	---	2466000	---	2761400

09368000 SAN JUAN RIVER AT SHIPROCK, NM -- Continued

SUSPENDED-SEDIMENT DISCHARGE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DAY	APRIL		MAY		JUNE		JULY		AUGUST		SEPTEMBER	
	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)	MEAN CONCEN- TRATION (MG/L)	LOADS (T/DAY)
1	4060	57900	3250	64300	1630	51100	115	2660	234	3160	138	176
2	3220	42900	3350	64000	2560	71200	142	3370	282	3580	143	187
3	2970	39400	3410	66400	2280	60200	135	3190	200	2310	206	283
4	2850	37600	4300	78000	2470	62300	143	3220	145	1550	264	336
5	3200	43000	3460	59800	2070	53500	124	2690	184	2020	488	582
6	3650	51600	3310	63200	1870	52500	309	6470	129	1410	2430	2940
7	6880	109000	4950	104000	3270	107000	2820	61900	153	1470	1600	1720
8	6000	104000	3500	79100	1750	52900	1350	30100	155	1400	477	474
9	5120	92800	4110	93900	2020	63800	2600	59100	139	1150	307	274
10	4010	75400	3200	64400	1430	41300	766	17200	245	1830	287	244
11	3450	65800	2260	42400	1610	39900	610	13700	170	1200	216	165
12	2450	36100	2060	36400	2000	48500	446	9970	258	1690	148	112
13	2510	34400	3010	52500	1370	35800	524	11400	151	1060	216	161
14	3150	48100	2270	37600	1420	40600	582	12900	799	5850	175	132
15	3630	60300	2800	50100	1050	30900	757	16700	1890	13000	4080	6370
16	5550	104000	4380	91500	1250	36800	718	15500	8200	61100	950	1290
17	5540	124000	3840	90800	1300	39700	663	13100	1200	8620	333	453
18	3750	88700	3640	86100	1240	35200	704	13300	6700	46700	470	614
19	5000	123000	3400	82300	1630	39300	860	15600	6500	41600	640	983
20	5080	125000	3250	87400	488	9760	736	12900	2350	12200	875	971
21	3850	88800	3010	84500	377	7010	432	7370	1810	8260	1060	1300
22	3100	72100	2800	76400	364	7040	359	6090	1600	6610	1580	2290
23	4040	98800	2050	60300	165	3590	370	6260	2880	10100	1180	1550
24	4060	106000	2040	63300	195	4490	386	6240	5230	15400	817	1100
25	3650	95000	2310	70500	440	9970	377	6010	550	1340	382	583
26	3190	78200	2170	65600	480	10600	601	9590	140	299	620	1760
27	2980	70200	1670	50000	247	5480	524	8150	130	247	650	1910
28	3340	75900	2890	101000	425	9360	328	4960	123	201	467	1420
29	3870	86900	2180	80600	547	12300	274	4120	520	621	551	1710
30	4620	106000	1480	53100	147	3360	213	3140	370	472	900	2720
31	---	---	1350	48100	---	---	281	4070	208	279	---	---
TOTAL	---	2340900	---	2147600	---	1045460	---	390970	---	256729	---	34810

TOTAL LOAD FOR YEAR: 12485925 TONS.

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO

LOCATION.--Lat 37°00'20", long 109°02'00", SE¼NE¼ sec.21, T.32 N., R.20 W., Montezuma County, Hydrologic Unit 14080201, on left bank 1,300 ft (396 m) upstream from bridge on Colorado Highway 40, 0.1 mi (0.16 km) north of New Mexico-Colorado State Line, 1.0 mi (1.6 km) east of Four Corners monument, 3.0 mi (4.8 km) downstream from Mancos River, and at mile 187.2 (301 km).

DRAINAGE AREA.--14,600 mi² (37,800 km²), approximately.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 4,900 ft (1,493 km), from topographic map.

REMARKS.--Water-discharge records fair.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 16,900 ft³/s (479 m³/s) May 29, 1979, gage height, 6.25 ft (1.905 m³/s); maximum gage height, 14.43 ft (4.398 m) Dec. 12, 1978 (backwater from ice); minimum 110 ft³/s (3.11 m³/s) Aug. 19, 1978.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 6,000 ft³/s (170 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Apr. 24	2100	11,600	329	5.72	1.743	May 29	2100	*16,900	479	6.25	1.905

Minimum discharge, 370 ft³/s (10.5 m³/s) Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	845	832	961	982	1100	1600	5850	9020	14700	8680	4960	590
2	793	780	1040	812	1050	1730	5350	8570	12800	8730	4780	580
3	754	990	1070	727	1020	1790	5200	8450	11600	8860	4510	572
4	754	2280	1040	833	981	1500	5330	8100	11300	8640	4120	572
5	680	1380	1040	1060	1000	1420	5290	7530	11500	8150	3970	564
6	623	1050	1050	1200	1070	1420	5340	7880	11800	7710	3940	564
7	669	961	1090	1170	1200	1610	5630	8600	12400	7470	3620	548
8	658	946	980	908	1130	1910	6100	9460	12600	7600	3280	524
9	623	918	860	865	1120	2800	6530	9500	12100	7700	3000	473
10	612	918	750	849	1040	2830	7020	8980	12100	7600	2770	461
11	506	932	730	949	1120	2290	8170	8430	10600	7400	2570	409
12	466	1500	750	1160	1350	2120	6590	7720	10100	7110	2480	390
13	506	1840	790	988	2490	2160	6410	7570	10300	6950	2500	376
14	506	1360	850	880	3330	2500	6510	7330	10900	6830	2590	409
15	428	1130	910	950	4650	3060	7090	7370	11200	6750	2340	556
16	457	1120	930	940	5420	2830	7810	7950	11100	6670	2500	637
17	448	1040	1100	1590	5360	3520	9070	8740	11100	6550	2840	608
18	495	932	1900	4070	4740	4270	9820	9120	10700	6670	2240	572
19	506	888	3510	5630	3330	3470	9830	9150	9670	6520	2610	646
20	537	888	1880	3290	2760	3590	10200	9510	8240	6480	2300	580
21	600	874	1400	1350	2480	4120	9630	10500	7550	6310	1980	556
22	806	946	1060	1120	2100	4640	9790	11000	7670	6270	1800	628
23	1090	1000	891	1010	1650	4300	9950	11900	8230	6240	1490	599
24	1200	1090	947	963	1370	4040	10500	13500	8470	6020	1250	608
25	1360	1960	918	1210	1510	3850	10700	13800	8680	5850	1050	618
26	1400	1930	914	1080	1450	4100	9960	12800	8600	5600	950	770
27	1090	1470	901	1050	1610	4920	9730	12100	8680	5540	833	1000
28	1050	1200	868	1050	1840	5060	9190	14000	8680	5440	802	1040
29	990	1100	898	1120	---	5630	9020	16400	8960	5380	675	1080
30	932	960	922	1120	---	6250	9170	16100	8860	5320	599	1060
31	903	---	939	1040	---	5540	---	15600	---	5200	590	---
TOTAL	23287	35215	33889	41966	59271	100870	236780	316680	311190	212240	75939	18590
MEAN	751	1174	1093	1354	2117	3254	7893	10220	10370	6846	2450	620
MAX	1400	2280	3510	5630	5420	6250	10700	16400	14700	8860	4960	1080
MIN	428	780	730	727	981	1420	5200	7330	7550	5200	590	376
AC-FT	46190	69850	67220	83240	117600	200100	469700	628100	617200	421000	150600	36870

CAL YR 1978 TOTAL 513378 MEAN 1407 MAX 4600 MIN 110 AC-FT 1018000
WTR YR 1979 TOTAL 1465917 MEAN 4016 MAX 16400 MIN 376 AC-FT 2908000

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
OCT 20...	1100	541	1060	8.5	16.0	13.0	9.0	340	200	95	24	89
NOV 30...	1315	960	935	8.3	8.0	4.0	11.1	300	160	92	18	83
DEC 20...	1500	2110	910	8.2	2.0	1.0	11.9	240	150	76	13	140
JAN 25...	1345	1270	860	8.0	2.5	1.0	11.2	0	0	100	17	78
FEB 23...	1430	1590	915	8.3	6.0	3.5	10.9	270	35	83	14	100
MAR 28...	1515	5010	560	8.3	16.0	7.0	9.4	200	48	60	12	43
APR 26...	1400	10000	385	8.3	21.0	11.0	9.2	140	27	40	9.8	24
MAY 25...	1230	13700	370	8.2	28.0	13.0	8.9	130	0	39	8.3	23
JUN 20...	1415	8230	335	8.1	30.0	15.0	8.7	130	43	38	8.0	18
JUL 26...	1545	5680	345	8.3	37.5	20.0	7.6	120	36	35	8.3	20
AUG 24...	1600	1260	720	8.3	32.5	21.5	7.4	250	130	71	17	50
SEP 18...	1130	556	930	8.4	28.5	20.0	7.8	310	160	91	20	81

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
OCT 20...	2.1	3.8	162	6	143	360	27	.6	6.3	726	692
NOV 30...	2.1	4.3	180	0	148	300	21	.5	11	636	619
DEC 20...	3.9	5.9	115	0	94	340	39	.5	8.9	664	680
JAN 25...	1.9	3.3	176	0	140	280	27	.4	.4	589	593
FEB 23...	2.7	3.7	286	0	235	300	24	.5	8.6	631	675
MAR 28...	1.3	3.0	185	0	152	150	8.9	.3	8.9	368	377
APR 26...	.9	2.2	138	0	113	95	5.1	.2	9.7	216	254
MAY 25...	.9	2.2	176	0	144	89	5.5	.2	6.9	241	261
JUN 20...	.7	1.8	106	0	87	82	4.7	.2	7.2	212	212
JUL 26...	.8	2.3	102	0	84	81	5.2	.3	11	224	214
AUG 24...	1.4	2.9	152	0	125	230	18	.3	10	484	474
SEP 18...	2.0	3.8	174	2	150	320	21	.6	9.3	652	635

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT 20...	1.3	.02	.61	1.9	.010	290	<10	3	--	4.7	1.3
NOV 30...	1.1	.03	.97	2.1	.440	270	20	--	--	3.9	--
DEC 20...	1.6	.05	4.9	6.5	2.40	140	30	--	.1	5.4	19
JAN 25...	1.2	.06	1.1	2.4	.440	160	40	--	--	3.1	4.4
FEB 23...	1.2	.05	4.7	5.9	.060	160	40	--	--	3.9	30
MAR 28...	.45	.03	4.1	4.6	1.10	70	70	--	--	3.8	15
APR 26...	.25	.01	1.1	1.4	.390	40	30	5	--	4.4	.5
MAY 25...	.24	.05	1.2	1.4	.020	60	30	--	--	5.7	--
JUN 20...	.18	.03	.56	.77	.160	30	10	--	--	6.5	1.6
JUL 26...	.24	.06	.28	.58	.160	40	20	5	--	4.3	.4
AUG 24...	.66	.07	1.3	2.1	.010	120	<10	4	--	5.7	1.5
SEP 18...	.81	.01	.51	1.3	.140	220	10	--	--	6.3	2.8

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ALUMINUM, DISSOLVED (UG/L AS AL) (01106)	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BERYLLIUM, TOTAL RECOVERABLE (UG/L AS BE) (01012)	BERYLLIUM, DISSOLVED (UG/L AS BE) (01010)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
OCT 20...	1100	10	1	1	80	80	0	<1	290	0	<1	0
APR 26...	1400	30	3	1	700	60	10	<1	40	1	<1	20
JUL 26...	1545	20	1	1	100	70	0	<1	40	1	2	0
AUG 24...	1600	0	--	1	--	90	--	<1	120	--	<1	--

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	LITHIUM TOTAL RECOVERABLE (UG/L AS LI) (01132)	LITHIUM DISSOLVED (UG/L AS LI) (01130)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
OCT 20...	0	0	<1	8	4	<10	6	0	50	50	80	3
APR 26...	0	8	<3	36	3	30	57	2	30	10	1000	5
JUL 26...	0	2	<3	8	2	20	16	0	20	20	100	5
AUG 24...	0	--	<3	--	1	<10	--	0	--	40	--	4

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	NICKEL, TOTAL RECOVERABLE (UG/L AS NI) (01067)	NICKEL, DISSOLVED (UG/L AS NI) (01065)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	VANADIUM, DISSOLVED (UG/L AS V) (01085)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT 20...	.0	.0	3	3	6	1	9	0	.0	40	30
APR 26...	.8	.0	0	<10	19	0	3	1	.6	220	10
JUL 26...	.0	.0	1	0	4	3	1	1	1.0	50	9
AUG 24...	--	.1	--	<10	--	1	--	3	1.0	--	<3

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued

CHEMICAL ANALYSES OF BOTTOM MATERIAL, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	BARIUM, RECOV. FM BOTTOM MATERIAL (UG/G AS BA) (01008)	BERYLLIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01013)	CADMIUM RECOV. FM BOTTOM MATERIAL (UG/G AS CD) (01028)	CHROMIUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01029)	COBALT, RECOV. FM BOTTOM MATERIAL (UG/G AS CO) (01038)	COPPER, RECOV. FM BOTTOM MATERIAL (UG/G AS CU) (01043)
OCT								
20...	1100	2	30	0	0	10	1	4
APR								
26...	1400	6	40	0	0	1	0	0

DATE	LEAD, RECOV. FM BOTTOM MATERIAL (UG/G AS PB) (01052)	MANGANESE, RECOV. FM BOTTOM MATERIAL (UG/G) (01053)	MERCURY RECOV. FM BOTTOM MATERIAL (UG/G AS HG) (71921)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01063)	NICKEL, RECOV. FM BOTTOM MATERIAL (UG/G AS NI) (01068)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	ZINC, RECOV. FM BOTTOM MATERIAL (UG/G AS ZN) (01093)
OCT							
20...	8	120	.00	0	2	0	26
APR							
26...	0	170	.01	0	0	0	13

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
OCT			
20...	1100	52	220
NOV			
30...	1315	570	1100
DEC			
20...	1500	K320	2800
FEB			
23...	1430	K240	K420000
MAR			
28...	1515	K410	620
APR			
26...	1400	80	K213
MAY			
25...	1230	K150	2400
JUN			
20...	1415	260	110
JUL			
26...	1545	53	59
AUG			
24...	1600	280	300

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	OCT 20,78		DEC 20,78		JAN 25,79		FEB 23,79		MAR 28,79		APR 26,79	
TIME	1100		1500		1345		1430		1515		1400	
TOTAL CELLS/ML	1300		1600		0		650		430		260	
DIVERSITY: DIVISION	0.7		0.8		0.0		0.7		0.0		0.3	
.CLASS	0.7		0.8		0.0		0.7		0.0		0.3	
..ORDER	1.2		1.5		0.0		0.7		0.0		0.3	
...FAMILY	2.1		1.5		0.0		0.7		0.9		2.7	
....GENUS	2.2		1.5		0.0		0.7		0.9		2.9	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)												
.CHLOROPHYCEAE												
..CHLOROCOCCALES												
...OOCYSTACEAE												
....TREUBARIA	--	-	--	-	--	-	--	-	--	-	--	-
...SCENEDESMACEAE												
....SCENEDESMUS	67	5	--	-	--	-	520#	80	--	-	--	-
..VOLVOCALES												
...CHLAMYDOMONADACEAE												
....CHLAMYDOMONAS	34	3	--	-	--	-	--	-	--	-	14	5
..ZYGNEMATALES												
...DESMIDIACEAE												
....COSMARIUM	--	-	--	-	--	-	--	-	--	-	--	-
CHRYSOPHYTA												
.BACILLARIOPHYCEAE												
..CENTRALES												
...COSCINODISCACEAE												
....CYCLOTELLA	56	4	400#	25	--	-	--	-	--	-	--	-
....MELOSIRA	56	4	--	-	--	-	--	-	--	-	--	-
..PENNALES												
...ACHNANTHACEAE												
....ACHNANTHES	11	1	--	-	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	--	-	--	-	--	-	28	11
...CYMBELLACEAE												
....CYMBELLA	--	-	--	-	--	-	--	-	--	-	14	5
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-	28	11
...DIATOMACEAE												
....DIATOMA	--	-	--	-	--	-	--	-	290#	67	42#	16
...FRAGILARIACEAE												
....SYNEDRA	--	-	--	-	--	-	--	-	--	-	--	-
...GOMPHONEMATACEAE												
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-	14	5
...NAVICULACEAE												
....NAVICULA	310#	24	810#	50	--	-	--	-	140#	33	28	11
...NITZSCHIACEAE												
....NITZSCHIA	650#	50	--	-	--	-	--	-	--	-	83#	32
...SURIRELLACEAE												
....SURIRELLA	34	3	--	-	--	-	--	-	--	-	14	5
CYANOPHYTA (BLUE-GREEN ALGAE)												
.CYANOPHYCEAE												
..CHROOCOCCALES												
...CHROOCOCCACEAE												
....ANACYSTIS	56	4	400#	25	--	-	--	-	--	-	--	-
..HORMOGONALES												
...OSCILLATORIACEAE												
....OSCILLATORIA	--	-	--	-	--	-	--	-	--	-	--	-
EUGLENOPHYTA (EUGLENOIDS)												
.EUGLENOPHYCEAE												
..EUGLENALES												
...EUGLENACEAE												
....TRACHELOMONAS	--	-	--	-	--	-	130#	20	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)												
.DINOPHYCEAE												
..PERIDINIALES												
...GLENODINIACEAE												
....GLENODINIUM	11	1	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	MAY 25,79		JUN 20,79		JUL 26,79		AUG 24,79		SEP 18,79	
TIME	1230		1415		1545		1600		1130	
TOTAL CELLS/ML	100		100		340		390		4400	
DIVERSITY: DIVISION	0.0		0.0		0.9		0.7		1.0	
.CLASS	0.0		0.0		0.9		0.7		1.0	
..ORDER	0.0		0.5		1.1		0.7		1.3	
...FAMILY	0.0		1.4		1.1		1.3		2.2	
....GENUS	0.0		1.4		1.1		1.3		2.3	
ORGANISM	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT	CELLS /ML	PER- CENT
CHLOROPHYTA (GREEN ALGAE)										
.CHLOROPHYCEAE										
..CHLOROCOCCALES										
...OOCYSTACEAE										
....TREUBARIA	--	-	--	-	--	-	65#	17	--	-
...SCENEDESMACEAE										
....SCENEDESMUS	--	-	--	-	100#	31	--	-	--	-
..VOLVOCALES										
...CHLAMYDOMONADACEAE										
....CHLAMYDOMONAS	--	-	--	-	--	-	--	-	--	-
..ZYGNEMATALES										
...DESMIDIACEAE										
....COSMARIUM	--	-	--	-	--	-	--	-	72	2
CHRYSOPHYTA										
.BACILLARIOPHYCEAE										
..CENTRALES										
...COSCINODISCACEAE										
....CYCLOTELLA	--	-	13	13	220#	65	--	-	72	2
....MELOSIRA	--	-	--	-	--	-	--	-	140	3
..PENNALES										
...ACHNANTHACEAE										
....ACHNANTHES	--	-	--	-	--	-	--	-	--	-
....COCCONEIS	--	-	--	-	13	4	--	-	72	2
...CYMBELLACEAE										
....CYMBELLA	--	-	--	-	--	-	--	-	72	2
....EPITHEMIA	--	-	--	-	--	-	--	-	--	-
...DIATOMACEAE										
....DIATOMA	--	-	--	-	--	-	--	-	72	2
...FRAGILARIACEAE										
....SYNEDRA	--	-	--	-	--	-	--	-	290	7
...GOMPHONEMATACEAE										
....GOMPHONEMA	--	-	--	-	--	-	--	-	--	-
...NAVICULACEAE										
....NAVICULA	--	-	39#	38	--	-	65#	17	430	10
...NITZSCHIACEAE										
....NITZSCHIA	100#	100	52#	50	--	-	260#	67	1700#	39
...SURIRELLACEAE										
....SURIRELLA	--	-	--	-	--	-	--	-	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)										
.CYANOPHYCEAE										
..CHROOCOCCALES										
...CHROOCOCCACEAE										
....ANACYSTIS	--	-	--	-	--	-	--	-	--	-
..HORMOGONALES										
...OSCILLATORIACEAE										
....OSCILLATORIA	--	-	--	-	--	-	--	-	1400#	33
EUGLENOPHYTA (EUGLENOIDS)										
.EUGLENOPHYCEAE										
..EUGLENALES										
...EUGLENACEAE										
....TRACHELOMONAS	--	-	--	-	--	-	--	-	--	-
PYRRHOPHYTA (FIRE ALGAE)										
.DINOPHYCEAE										
..PERIDINIALES										
...GLENODINIACEAE										
....GLENODINIUM	--	-	--	-	--	-	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
PERIPHYTON

DATE	TIME	LENGTH OF EXPO-SURE (DAYS) (00022)	PERI-PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI-PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI-PHYTON CHROMO-GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO-PHYLL RATIO PERI-PHYTON (UNITS) (70950)	SAMPLING METHOD
MAY								
25...	1230	17	.080	.000	.000	.000	--	Polyethylene strip
AUG								
24...	1600	30	.470	.390	.250	.000	320	"
SEP								
18...	1130	26	11.7	10.7	9.48	1.14	105	"

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)
OCT											
06...	1030	638	12.0	368	--	--	--	--	--	--	--
20...	1100	541	13.0	263	24	26	32	38	43	75	99
NOV											
30...	1315	960	4.0	1980	--	--	--	--	--	--	--
DEC											
20...	1500	2110	1.0	12600	--	--	--	--	--	--	--
JAN											
25...	1345	1270	1.0	2500	--	--	--	--	--	--	--
FEB											
23...	1430	1590	3.5	11200	--	--	--	--	--	--	--
MAR											
28...	1515	5010	7.0	13000	--	--	--	--	--	--	--
APR											
12...	1230	6710	6.0	6040	--	--	--	--	--	--	--
26...	1400	10000	11.0	2910	15	18	23	42	55	78	95
MAY											
09...	1320	9630	8.0	2930	--	--	--	--	--	--	--
25...	1230	13700	13.0	2860	--	--	--	--	--	--	--
JUN											
07...	1345	12300	16.0	1850	--	--	--	--	--	--	--
20...	1415	8230	15.0	1770	--	--	--	--	--	--	--
JUL											
26...	1515	5610	20.0	638	8	9	11	23	34	75	99
29...	1500	5350	21.0	957	--	--	--	--	--	--	--
AUG											
10...	1545	2700	21.0	756	--	--	--	--	--	--	--
24...	1600	1260	21.5	295	47	58	69	80	82	87	99
SEP											
11...	1130	401	21.0	131	--	--	--	--	--	--	--
18...	1100	556	20.0	708	--	--	--	--	--	--	--

09371010 SAN JUAN RIVER AT FOUR CORNERS, CO -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	SED. SUSP. FALL DIAM. % FINER THAN 1.00 MM (70346)	BED MAT. FALL DIAM. % FINER THAN .062 MM (80158)	BED MAT. FALL DIAM. % FINER THAN .125 MM (80159)	BED MAT. FALL DIAM. % FINER THAN .250 MM (80160)	BED MAT. FALL DIAM. % FINER THAN .500 MM (80161)	BED MAT. FALL DIAM. % FINER THAN 1.00 MM (80162)	BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM (80168)	BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM (80169)	BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM (80170)	BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM (80171)	BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM (80172)
OCT											
06...	--	--	--	--	--	--	--	--	--	--	--
20...	100	0	3	34	85	100	--	--	--	--	--
NOV											
30...	--	--	--	--	--	--	--	--	--	--	--
DEC											
20...	--	--	--	--	--	--	--	--	--	--	--
JAN											
25...	--	--	--	--	--	--	--	--	--	--	--
FEB											
23...	--	--	--	--	--	--	--	--	--	--	--
MAR											
28...	--	--	--	--	--	--	--	--	--	--	--
APR											
12...	--	--	--	--	--	--	--	--	--	--	--
26...	100	0	0	3	14	--	58	82	89	96	100
MAY											
09...	--	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	--	--	--	--	--	--	--	--
JUN											
07...	--	--	--	--	--	--	--	--	--	--	--
20...	--	--	--	--	--	--	--	--	--	--	--
JUL											
26...	100	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
AUG											
10...	--	--	--	--	--	--	--	--	--	--	--
24...	100	--	--	--	--	--	--	--	--	--	--
SEP											
11...	--	--	--	--	--	--	--	--	--	--	--
18...	--	--	--	--	--	--	--	--	--	--	--

09379500 SAN JUAN RIVER NEAR BLUFF, UT

LOCATION.--Lat 37°08'49", long 109°51'51", in SE¼NE¼NW¼ sec.7, T.42 S., R.19 E., San Juan County, Hydrologic Unit 14080205, on left bank 1,600 ft (490 m) downstream from Gypsum Creek, 1,800 ft (550 m) upstream from highway bridge, 20 mi (32 km) southwest of Bluff, and at mile 113.5 (182.6 km).

DRAINAGE AREA.--23,000 mi^2 (60,000 km^2), approximately.

PERIOD OF RECORD.--October 1914 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1940. WSP 1313: 1917, 1929. WSP 1343: 1945.

GAGE.--Water-stage recorder. Datum of gage is 4,048 ft (1,234 m) National Geodetic Vertical Datum of 1929 (levels of Topographic Division, USGS). Prior to Mar. 16, 1927, chain gages at sites about 1,700 ft (520 m) downstream at different datums.

REMARKS.--Records good. Diversions for irrigation of approximately 200,000 acres (810 km^2) above station. No diversion between station and mouth of river. Flow partly regulated by Navajo Reservoir since June 28, 1962 (see station 09355100). Water quality records for the current year are published in Water Resources Data for Utah.

AVERAGE DISCHARGE.--65 years, 2,550 ft^3/s (72.22 m^3/s), 1,847,000 acre-ft/yr (2.28 km^3/yr), unadjusted.

EXTREMES FOR PERIOD OF RECORD (1914-17 AND SINCE 1927).--Maximum discharge, 70,000 ft^3/s (1,980 m^3/s) Sept. 10, 1927, gage height, 32.0 ft (9.75 m) from rating curve extended above 31,000 ft^3/s (787 m^3/s) and slope-area measurement at gage height 26.62 ft (8.114 m); no flow July 3-13, 1934, Aug. 24-27, 29, 1939.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Oct. 6, 1911, which is greatest known at Shiprock, NM, probably exceeded that of Sept. 10, 1927 at this station but stage was not accurately determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 8,000 ft^3/s (227 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Jan. 19	1300	10,300	292	10.65	3.246
Mar. 30	1200	8,040	228	9.42	2.871
Apr. 10	1500	13,500	382	12.20	3.719
Apr. 25	0945	13,300	377	12.08	3.682
May 29	2315	*15,600	442	13.17	4.014
June 9	0100	13,400	379	12.13	3.697
July 2	2300	9,900	280	10.42	3.176

Minimum discharge, 382 ft^3/s (10.8 m^3/s) Sept. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	717	820	934	925	1100	1910	7020	9490	14500	9120	4370	711
2	728	806	1280	860	934	2360	6500	8950	12900	9210	4160	744
3	681	976	1300	850	1080	2360	5950	8550	10900	9290	4010	743
4	669	2200	1040	827	1100	1940	5710	8700	10300	9220	3740	744
5	642	2370	985	761	1090	1550	5760	8560	10300	8900	3430	751
6	610	1340	959	985	1080	1520	6750	8610	10800	8580	3370	708
7	569	972	951	1080	1060	1830	8770	8950	11500	8220	3310	695
8	578	925	1040	1020	1110	2280	10600	9610	12500	7860	2960	688
9	574	903	917	908	1200	3020	11700	10300	11600	7520	2760	644
10	550	895	900	892	1160	3450	11900	10200	12100	7180	2560	609
11	537	875	850	835	1050	2650	11400	10300	10900	7010	2380	570
12	482	1670	830	935	1120	2180	9030	9900	9450	6880	2240	509
13	447	2770	810	951	1610	2330	7430	8580	9570	6720	2190	420
14	433	2300	810	1110	3400	2700	7310	7800	10300	6590	2250	400
15	452	1450	810	1050	5380	3290	8880	6850	11100	6460	2450	394
16	417	1170	800	977	6700	3500	10800	7310	11400	6370	2330	471
17	402	1130	850	1470	5800	3580	10700	8360	11300	6270	2670	682
18	398	1090	2000	7230	5580	4180	11400	9090	11800	6270	2630	630
19	396	990	3000	9520	4030	3940	11500	9120	11200	6340	2360	604
20	440	951	3500	1100	3200	3890	11500	9520	9520	6220	2220	610
21	469	923	2680	1050	4070	5580	11400	10800	7960	6010	1880	636
22	626	900	1640	1150	3090	5250	11100	11100	7500	5950	1760	567
23	646	917	1280	1250	2230	4560	11200	11200	7920	5840	1620	619
24	1050	951	1040	1210	1680	4070	11500	12000	8620	5710	1400	643
25	1280	1040	1050	1140	1460	3890	11900	13000	8970	5450	1240	644
26	1190	2340	1070	1240	1420	4090	11300	13200	9020	5280	1090	653
27	1080	2180	1030	1130	1950	4770	10500	12700	8860	5110	1020	713
28	958	1440	1030	1110	2300	5480	10200	13200	8970	4870	929	986
29	916	1080	994	1050	---	6650	9710	14300	9030	4670	870	1020
30	864	1020	985	1200	---	7700	9700	15200	9170	4590	784	1060
31	838	---	1010	1150	---	7320	---	14900	---	4550	691	---
TOTAL	20639	39394	38375	46966	66984	113820	289120	320350	309960	208260	71674	19868
MEAN	666	1313	1238	1515	2392	3672	9637	10330	10330	6718	2312	662
MAX	1280	2770	3500	9520	6700	7700	11900	15200	14500	9290	4370	1060
MIN	396	806	800	761	934	1520	5710	6850	7500	4550	691	394
AC-FT	40940	78140	76120	93160	132900	225800	573500	635400	614800	413100	142200	39410

CAL YR 1978 TOTAL 499797 MEAN 1369 MAX 4480 MIN 157 AC-FT 991300
WTR YR 1979 TOTAL 1545410 MEAN 4234 MAX 15200 MIN 394 AC-FT 3065000

09386900 RIO NUTRIA NEAR RAMAH, NM

LOCATION.--Lat 35°16'57", long 108°33'10", in NW¼SW¼ sec.8, T.12 N., R.16 W., McKinley County, Hydrologic Unit 15020004, on Zuni Indian Reservation, on left bank at mouth of Nutria Canyon, 0.9 mi (1.4 km) upstream from Nutria Diversion Dam, 1.3 mi (2.1 km) northeast of Upper Nutria, and 10.4 mi (16.7 km) northwest of Ramah.

DRAINAGE AREA.--71.4 mi² (185 km²).

PERIOD OF RECORD.--October 1969 to current year.

REVISED RECORDS.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder and concrete control. Concrete control raised 1.0 ft (0.305 m) June 6, 1975. Altitude of gage is 6,860 ft (2,091 m), from topographic map.

REMARKS.--Records good except those for winter period, which are fair. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 5.16 ft³/s (0.146 m³/s), 3,740 acre-ft/yr (4.61 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 782 ft³/s (22.1 m³/s) Apr. 14, 1973, gage height, 5.58 ft (1.701 m), from rating curve extended above 470 ft³/s (13.3 m³/s); no flow Oct. 1-20, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 30 ft³/s (0.85 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 18	1600	176	4.98	3.97	1.210	May 25	1815	57	1.61	3.41	1.039
Apr. 15	2015	*530	15.0	5.20	1.585	Aug.11	2130	392	11.1	4.83	1.472

Minimum discharge, 0.03 ft³/s (0.0008 m³/s) at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.04	.11	.13	.11	1.9	7.7	99	13	1.9	.10	.04	.03
2	.03	.11	.13	.08	2.0	7.0	87	11	2.9	.10	.04	.03
3	.03	.12	.11	.07	2.1	6.2	74	10	4.0	.10	.04	.03
4	.03	.12	.11	.09	3.0	5.6	70	9.7	3.1	.09	.04	.03
5	.03	.11	.11	.09	2.7	5.3	113	8.2	3.5	.09	.04	.03
6	.03	.11	.12	.08	2.5	7.1	240	7.2	2.9	.09	.04	.03
7	.04	.11	.11	.09	2.3	16	365	5.5	2.3	.09	.04	.03
8	.04	.11	.11	.08	2.1	43	389	5.0	1.9	.07	.04	.04
9	.04	.11	.11	.09	2.4	51	368	11	1.9	.07	.04	.04
10	.04	.11	.11	.08	3.3	36	260	19	1.4	.07	.04	.04
11	.05	.12	.11	.08	4.3	36	138	19	1.0	.07	26	.04
12	.05	.12	.11	.24	5.1	46	106	12	.67	.06	13	.04
13	.05	.12	.12	.37	6.2	51	111	7.9	.56	.06	.58	.03
14	.05	.11	.09	.39	8.0	50	246	5.9	.51	.06	.20	.03
15	.05	.11	.09	.18	14	52	362	4.8	.48	.06	.14	.03
16	.05	.11	.09	.14	17	76	356	4.2	.43	.06	.11	.03
17	.05	.11	.09	.40	13	63	263	4.0	.40	.06	.09	.03
18	.05	.11	59	.77	11	46	184	4.0	.32	.06	.08	.04
19	.06	.11	28	.83	11	45	121	3.5	.27	.06	.07	.04
20	.06	.11	5.3	1.1	10	33	76	5.9	.29	.06	.05	.04
21	.07	.11	2.6	2.3	9.1	32	58	34	.27	.06	.05	.04
22	.07	.11	1.6	1.9	7.7	28	51	11	.23	.06	.05	.04
23	.08	.11	.71	1.6	7.4	35	45	5.6	.19	.06	.04	.04
24	.08	.27	.34	1.4	6.8	40	37	4.7	.16	.06	.04	.04
25	.08	4.7	.22	1.7	6.9	50	29	13	.15	.06	.04	.04
26	.08	1.0	.16	1.2	7.0	72	25	16	.11	.05	.04	.04
27	.09	.30	.13	1.1	7.2	106	24	10	.10	.05	.04	.04
28	.09	.17	.14	1.7	7.4	164	21	7.1	.09	.06	.04	.05
29	.09	.14	.16	1.3	---	146	18	4.9	.09	.06	.04	.05
30	.11	.13	.19	1.7	---	136	16	3.3	.09	.05	.03	.05
31	.11	---	.16	1.9	---	136	---	2.4	---	.04	.03	---
TOTAL	1.82	9.29	100.56	23.16	183.4	1627.9	4352	282.8	32.21	2.09	41.16	1.11
MEAN	.059	.31	3.24	.75	6.55	52.5	145	9.12	1.07	.067	1.33	.037
MAX	.11	4.7	59	2.3	17	164	389	34	4.0	.10	26	.05
MIN	.03	.11	.09	.07	1.9	5.3	16	2.4	.09	.04	.03	.03
AC-FT	3.6	18	199	46	364	3230	8630	561	64	4.1	82	2.2

CAL YR 1978 TOTAL 1966.95 MEAN 5.39 MAX 134 MIN .02 AC-FT 3900
WTR YR 1979 TOTAL 6657.50 MEAN 18.2 MAX 389 MIN .03 AC-FT 13210

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM

LOCATION.--Lat 35°06'03", long 108°45'03", in NE¼ sec.17, T.10 N., R.18 W., McKinley County, Hydrologic Unit 15020004, on Zuni Indian Reservation, on left bank downstream from highway bridge on State Highway 36, 0.8 mi (1.3 km) upstream from flow line of Black Rock Reservoir, 2.3 mi (3.7 km) northeast of Black Rock, and 5.9 mi (9.5 km) northeast of Zuni Pueblo.

DRAINAGE AREA.--810 mi² (2,100 km²), approximately.

PERIOD OF RECORD.--October 1969 to current year. Prior to October 1974 published as "above Zuni Reservoir".

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,480 ft (1,975 m), from topographic map.

REMARKS.--Records good except those for March and April which are fair and those for winter periods, which are poor. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--10 years, 10.9 ft³/s (0.309 m³/s), 7,900 acre-ft/yr (9.74 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,200 ft³/s (147 m³/s) Aug. 4, 1974, gage height, 6.61 ft (2.015 m), from rating curve extended above 670 ft³/s (19.0 m³/s) on basis of slope-area measurements at gage heights 4.05 ft (1.234 m), 3.94 ft (1.201 m), 5.16 ft (1.573 m), and 6.61 ft (2.015 m); no flow for many days.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 100 ft³/s (2.8 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Dec. 18		Unknown		Unknown	
Mar. 15	0415	360	10.2	3.98	1.213
Apr. 15	1930	*884	25.0	4.50	1.372

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.10	.20	.69	1.0	1.7	7.2	346	14	4.9	.00	.00	.00
2	.14	.38	.59	1.0	1.7	7.8	276	17	4.6	.00	.00	.00
3	.07	.45	.84	1.0	1.8	6.6	195	19	4.8	.00	.00	.00
4	.11	1.0	.77	1.0	2.8	6.0	138	20	3.5	.00	.00	.00
5	.57	.85	.60	1.0	2.2	5.0	78	15	3.1	.00	.00	.00
6	.69	.57	.40	1.2	1.7	5.5	63	8.9	2.4	.00	.00	.00
7	.67	.40	.20	1.2	1.4	21	134	5.3	1.8	.00	.00	.00
8	.64	.32	.00	1.2	1.2	58	432	2.2	1.5	.00	14	.00
9	.80	.45	.00	1.2	1.4	110	617	3.4	1.1	.00	1.3	.00
10	.73	.65	.00	1.2	1.8	50	727	3.6	3.2	.00	.42	.00
11	.85	.69	.00	1.0	2.1	38	672	2.5	9.9	.00	2.1	.00
12	.91	.90	.00	1.0	1.6	38	414	1.9	8.7	.00	22	.00
13	.99	1.1	.00	.90	3.0	58	346	1.5	4.8	.00	1.4	.00
14	1.0	.91	.00	.80	7.8	195	283	1.4	2.5	.00	.65	.00
15	.97	.82	.00	1.0	33	270	405	1.4	1.4	.00	41	.00
16	.83	.74	.00	1.0	90	346	595	1.8	.58	.00	3.2	.00
17	.83	1.1	.50	1.0	51	275	573	6.2	.25	.00	1.4	.00
18	.82	.93	70	1.0	53	262	639	12	.08	.00	1.6	.00
19	.98	.69	35	1.0	32	200	415	8.7	.05	.00	8.4	.00
20	.74	.71	7.0	1.0	21	118	297	7.4	.02	.00	3.8	.00
21	.49	.74	3.0	1.0	13	110	200	8.8	.00	.00	.85	.00
22	1.1	.73	2.0	1.0	10	90	150	6.6	.00	.00	.35	.00
23	1.1	.71	1.0	1.0	9.5	72	118	4.0	.00	.00	.19	.00
24	.90	1.6	.70	.80	9.0	69	94	4.3	.00	.00	.10	.00
25	.77	4.0	.60	1.0	8.0	69	69	8.1	.00	.00	.06	.00
26	.69	2.2	.60	1.0	7.0	81	63	10	.00	.00	.03	.00
27	.45	1.4	.70	1.0	6.6	122	53	10	.00	.00	.02	.00
28	.38	1.1	.70	1.0	7.0	154	35	8.8	.00	.00	.00	.00
29	.35	.84	.70	1.0	---	290	22	8.5	.00	.00	.00	.00
30	.22	.86	.80	1.0	---	304	16	7.4	.00	.00	.00	.00
31	.20	---	.80	1.0	---	304	---	6.7	---	.00	.00	---
TOTAL	20.09	28.04	128.19	31.50	382.3	3742.1	8465	236.4	59.18	.00	102.87	.00
MEAN	.65	.93	4.14	1.02	13.7	121	282	7.63	1.97	.000	3.32	.000
MAX	1.1	4.0	70	1.2	90	346	727	20	9.9	.00	41	.00
MIN	.07	.20	.00	.80	1.2	5.0	16	1.4	.00	.00	.00	.00
AC-FT	40	56	254	62	758	7420	16790	469	117	.00	204	.00

CAL YR 1978 TOTAL 1197.43 MEAN 3.28 MAX 158 MIN .00 AC-FT 2380
WTR YR 1979 TOTAL 13195.67 MEAN 36.2 MAX 727 MIN .00 AC-FT 26170

09386950 ZUNI RIVER ABOVE BLACK ROCK RESERVOIR, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1978 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
JUN 20...	0915	200	370	8.1	12.5	160	0	35	17	27

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
JUN 20...	.9	3.7	170	40	6.5	.4	.6	232	.00	20

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
JUN 20...	0915	200	12.5	44	24

09395350 PUERCO RIVER NEAR CHURCH ROCK, NM

LOCATION.--Lat 35°36'41", long 108°33'11" in SW¼ SW¼, sec. 17, T. 16 N., R. 16W., McKinley County, Hydrologic Unit 15020006, on left bank at downstream side of bridge on State Highway 566, 4.4 mi (7.1 km) upstream from Hard Ground Canyon, 9.1 mi (15 km) upstream from South Fork, and 11 mi (18 km) northeast of Gallup.

DRAINAGE AREA.--193 mi² (500 km²)

PERIOD OF RECORD.--October 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,730 ft (2,051 m) from topographic map.

REMARKS.--Records poor.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 450 ft³/s (12.7 m³/s) July 16, 1979, gage height, 4.50 ft (1.372 m) from rating curve extended above 20 ft³/s (0.57 m³/s) on basis of slope-area measurement of peak flow; minimum daily, 1.3 ft³/s (0.04 m³/s) May 19, 1978.

EXTREMES FOR CURRENT YEAR.--Water year 1978: Maximum daily discharge, 28 ft³/s (0.79 m³/s) Sept. 8; minimum daily, 1.3 ft³/s (0.04 m³/s) May 19.

Water year 1979: Maximum discharge, 450 ft³/s (12.7 m³/s) July 16, gage height, 4.50 ft (1.372 m); minimum daily, 2.2 ft³/s (0.06 m³/s) Nov. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1977 TO SEPTEMBER 1978
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.4	9.0	8.5	5.0	13	7.4	11	5.6	20	6.0	8.0	6.0
2	6.2	8.6	9.0	4.5	15	10	10	6.2	25	6.0	7.4	6.0
3	7.1	10	9.0	4.0	17	11	7.4	5.4	14	6.0	7.0	8.0
4	6.7	9.3	10	5.0	16	12	6.7	10	10	6.0	7.0	9.0
5	7.1	10	10	4.0	27	10	6.2	10	9.0	6.0	7.0	10
6	6.7	9.7	11	4.0	22	9.5	5.4	9.0	8.0	6.0	7.0	14
7	6.4	14	10	3.5	12	9.4	6.0	8.0	8.0	6.0	7.0	18
8	7.4	12	10	3.0	6.4	9.4	7.0	8.0	8.0	6.0	7.0	28
9	7.1	10	11	3.5	3.3	9.7	8.5	7.0	8.0	6.0	7.0	22
10	8.2	10	11	4.0	2.4	12	10	7.0	8.0	6.0	7.0	16
11	7.4	9.0	12	4.0	4.3	5.4	13	7.0	7.5	9.0	7.0	15
12	6.7	8.0	11	4.0	3.3	5.9	17	7.0	7.2	7.0	7.0	15
13	6.4	8.0	11	3.5	2.9	8.0	10	6.5	7.0	6.0	7.0	11
14	5.4	6.5	11	4.0	6.2	9.0	7.1	6.5	6.6	6.0	7.0	10
15	5.9	6.0	8.0	4.5	16	10	8.6	5.0	6.4	6.0	7.0	10
16	5.9	7.0	9.0	4.5	14	12	11	5.0	6.2	6.0	7.0	10
17	6.4	5.0	9.0	4.5	12	14	13	3.5	4.8	6.0	7.0	9.7
18	6.4	5.0	8.0	4.5	12	19	16	1.7	5.1	6.4	8.0	8.9
19	5.9	4.5	7.5	4.5	10	22	20	1.3	3.6	6.2	10	6.2
20	7.0	4.5	7.0	4.0	12	27	25	1.7	3.3	7.0	8.0	6.2
21	7.0	5.0	6.0	3.5	10	24	15	4.3	4.5	7.0	7.5	9.3
22	7.5	5.0	5.0	3.0	7.4	22	10	5.6	3.5	7.0	7.5	6.7
23	7.0	5.5	4.5	2.5	9.3	15	6.7	5.4	2.4	6.5	8.0	7.8
24	6.5	6.0	4.5	2.4	10	11	16	5.4	1.7	6.5	8.0	10
25	6.0	6.0	7.0	2.2	12	12	15	6.2	1.5	7.0	6.0	14
26	6.0	6.0	6.0	2.2	18	14	10	8.0	3.6	7.0	6.0	16
27	7.0	6.5	6.0	3.0	22	11	8.9	8.5	6.7	7.5	5.0	14
28	7.0	7.0	6.0	4.0	11	9.3	8.2	9.0	5.1	7.5	5.0	10
29	8.0	7.0	6.5	9.0	---	8.6	8.2	9.0	5.1	7.5	4.0	9.3
30	8.0	8.0	6.0	10	---	9.7	10	10	6.0	8.0	5.0	8.2
31	8.5	---	6.0	10	---	10	---	15	---	8.0	5.0	---
TOTAL	210.2	228.1	256.5	134.3	326.5	379.3	326.9	207.8	215.8	205.1	213.4	344.3
MEAN	6.78	7.60	8.27	4.33	11.7	12.2	10.9	6.70	7.19	6.62	6.88	11.5
MAX	8.5	14	12	10	27	27	25	15	25	9.0	10	28
MIN	5.4	4.5	4.5	2.2	2.4	5.4	5.4	1.3	1.5	6.0	4.0	6.0
AC-FT	417	452	509	266	648	752	648	412	428	407	423	683

WTR YR 1978 TOTAL 3048.2 MEAN 8.35 MAX 28 MIN 1.3 AC-FT 6050

09395350 PUERCO RIVER NEAR CHURCH ROCK, NM--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	10	9.3	5.0	4.0	5.0	11	6.2	2.6	3.3	5.6	7.1	7.8
2	6.2	7.4	5.0	3.0	7.0	9.7	6.7	5.4	3.5	5.1	12	7.4
3	5.6	2.9	5.0	2.5	6.0	9.3	5.6	5.9	4.0	8.2	12	6.7
4	8.6	2.2	6.0	2.7	5.0	9.3	7.4	7.4	4.0	7.8	13	4.3
5	6.7	2.6	6.5	3.0	6.0	8.5	7.1	9.7	3.8	7.8	13	4.3
6	12	4.0	7.0	3.5	7.0	7.6	6.2	9.7	3.5	9.3	10	3.8
7	9.7	4.5	7.0	4.0	8.0	7.0	4.5	8.9	4.6	8.9	12	3.6
8	10	5.6	7.0	4.0	10	6.0	4.8	9.7	4.5	8.9	8.9	3.5
9	6.7	6.7	8.0	5.0	15	5.1	5.4	9.7	5.1	8.9	14	3.3
10	6.2	8.6	7.0	4.5	20	5.1	6.7	9.7	5.9	9.3	15	2.8
11	8.2	10	8.0	4.5	25	6.0	7.8	8.2	5.4	9.3	15	3.5
12	7.8	7.8	9.0	5.0	26	6.7	7.1	7.8	6.7	10	10	4.0
13	8.9	5.9	10	5.0	27	8.2	6.4	7.8	7.8	9.3	9.7	6.4
14	12	7.4	8.0	5.0	28	11	4.8	5.9	6.4	7.4	8.9	11
15	14	11	8.0	5.0	29	11	5.1	5.9	5.1	8.6	8.2	12
16	11	12	8.0	4.0	30	12	5.9	7.8	7.8	92	7.1	7.4
17	7.8	12	15	4.0	28	14	6.2	10	8.2	6.7	5.9	6.2
18	7.1	11	70	4.0	21	26	4.8	8.6	8.2	11	4.5	6.2
19	7.8	9.0	10	4.0	20	24	4.8	5.9	8.6	12	4.5	5.4
20	8.2	7.0	5.5	4.0	17	20	5.1	5.6	8.9	9.7	6.2	5.4
21	6.2	6.0	5.5	5.0	15	17	4.8	5.6	8.2	8.2	7.1	5.6
22	4.3	7.0	5.0	5.0	12	19	4.5	6.2	7.1	9.3	7.1	4.5
23	6.2	8.0	5.0	5.0	10	16	3.6	6.4	5.4	10	7.5	4.8
24	6.7	6.0	4.5	4.0	8.0	12	3.6	6.7	6.2	9.7	7.8	6.2
25	7.1	6.0	4.5	4.0	7.0	10	4.0	5.4	6.2	8.6	6.7	5.4
26	7.4	5.5	4.5	3.8	5.0	10	4.3	5.6	7.1	7.4	6.4	6.4
27	8.6	5.0	4.5	3.7	5.2	8.9	4.5	5.4	7.1	8.9	8.2	5.1
28	11	5.5	4.0	3.5	5.4	7.8	5.1	4.8	7.8	10	9.7	6.7
29	11	5.0	4.0	4.0	---	6.7	5.1	5.4	7.1	10	7.1	5.4
30	14	5.0	4.0	3.0	---	5.6	4.8	6.4	7.1	9.3	6.4	6.2
31	11	---	4.0	3.5	---	5.9	---	3.6	---	7.8	7.8	---
TOTAL	268.0	205.9	264.5	125.2	407.6	336.4	162.9	213.7	184.8	355.0	278.8	171.3
MEAN	8.65	6.86	8.53	4.04	14.6	10.9	5.43	6.89	6.16	11.5	8.99	5.71
MAX	14	12	70	5.0	30	26	7.8	10	8.9	92	15	12
MIN	4.3	2.2	4.0	2.5	5.0	5.1	3.6	2.6	3.3	5.1	4.5	2.8
AC-FT	532	408	525	248	808	667	323	424	367	704	553	340

CAL YR 1978 TOTAL 3091.8 MEAN 8.47 MAX 70 MIN 1.3 AC-FT 6130
WTR YR 1979 TOTAL 2974.1 MEAN 8.15 MAX 92 MIN 2.2 AC-FT 5900

09395500 PUERCO RIVER AT GALLUP, NM

LOCATION.--Lat 35°31'45", long 108°44'41", in NE¼SE¼ sec.16, T.15 N., R.18 W., McKinley County, Hydrologic Unit 15020006, near center of span on downstream side of Third Street bridge in Gallup, 0.8 mi (1.3 km) upstream from Gamerco Wash, 3.5 mi (5.6 km) downstream from Hogback, and 4.9 mi (7.9 km) downstream from South Fork.

DRAINAGE AREA.--558 mi² (1,450 km²).

PERIOD OF RECORD.--June 1940 to July 1946, June 1957 to August 1977 (annual maximum only), September 1977 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 6,480 ft (1,975 m) from topographic map. Prior to September 1977 at site 2,000 ft (610 m) upstream at different datum.

REMARKS.--Records poor.

AVERAGE DISCHARGE.--7 years (water years 1941-45, 1978-79), 8.93 ft³/s (0.253 m³/s), 6,470 acre-ft/yr (7.98 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,000 ft³/s (340 m³/s) July 17, 1972, gage height, 15.3 ft (4.663 m) site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 420 ft³/s (11.9 m³/s) at 2345 hours Aug. 11, gage height, 3.83 ft (1.167 m), no peak above base of 1,000 ft³/s (28 m³/s); minimum daily, 0.50 ft³/s (0.01 m³/s) Dec. 9, 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.1	3.6	2.0	2.3	7.0	51	27	2.0	24	3.0	4.1	3.0
2	2.9	3.6	2.5	2.0	13	52	28	2.5	10	2.7	4.0	3.0
3	3.7	25	2.0	1.5	12	35	28	3.5	3.0	2.5	4.4	3.0
4	3.3	8.9	1.5	1.5	9.0	20	20	4.5	3.0	2.4	3.8	3.0
5	3.0	4.9	2.5	2.0	13	15	17	5.0	3.0	2.4	5.5	3.0
6	4.2	3.9	2.0	2.0	30	15	24	5.0	2.0	2.3	7.5	3.0
7	2.5	3.3	2.0	2.0	36	60	54	4.5	2.5	2.4	19	3.0
8	3.0	3.2	1.0	2.0	35	66	80	5.0	2.3	2.1	7.0	3.0
9	2.2	2.5	.50	2.0	43	70	45	4.8	2.6	1.6	5.0	3.0
10	3.0	.83	.50	2.0	43	40	25	4.5	3.0	1.1	5.0	3.0
11	2.6	3.9	2.5	2.0	43	45	30	4.5	3.3	1.0	7.0	3.0
12	2.6	11	4.0	2.0	58	50	26	4.0	3.6	1.0	36	3.0
13	2.7	9.2	7.0	2.0	100	60	23	4.0	4.0	1.2	10	3.1
14	2.9	4.5	8.0	1.0	86	70	20	3.5	3.5	1.7	7.0	3.1
15	3.1	9.8	8.0	1.0	135	76	24	3.5	3.0	2.0	5.0	3.1
16	3.5	6.1	8.0	2.0	139	89	30	4.0	3.5	46	3.0	3.2
17	3.5	2.8	20	50	127	100	35	5.0	3.5	11	3.0	3.2
18	3.1	2.5	198	20	106	95	33	4.0	3.5	10	3.0	3.2
19	2.8	2.5	120	3.0	80	90	31	3.5	3.5	7.6	3.0	3.3
20	3.7	2.0	20	3.0	74	80	23	5.0	3.5	5.4	3.0	3.0
21	29	2.0	6.0	4.0	71	72	23	3.5	3.5	6.6	3.0	3.0
22	4.0	2.0	3.0	4.0	63	63	24	3.5	3.5	5.4	3.0	3.0
23	4.0	2.5	2.5	4.0	47	56	24	4.0	3.0	3.8	3.0	3.0
24	4.0	25	2.5	3.0	43	50	21	4.5	3.2	3.8	3.0	3.0
25	4.0	20	2.5	3.0	31	44	15	3.5	3.2	3.8	3.0	3.0
26	4.0	5.0	2.8	3.0	22	40	12	4.0	3.2	4.2	3.0	3.0
27	4.0	3.0	3.0	3.0	30	54	23	3.5	3.2	4.2	3.0	3.0
28	4.0	2.5	2.8	2.5	36	66	19	3.0	3.2	5.0	3.0	3.0
29	4.0	2.0	2.5	2.3	---	80	12	2.5	3.2	4.2	3.0	3.0
30	4.0	2.0	3.5	2.0	---	25	8.5	3.0	3.2	4.2	3.0	3.0
31	3.6	---	2.5	3.5	---	26	---	2.0	---	4.2	3.0	---
TOTAL	129.0	180.03	445.60	139.6	1532.0	1755	804.5	119.3	122.7	158.8	178.3	91.2
MEAN	4.16	6.00	14.4	4.50	54.7	56.6	26.8	3.85	4.09	5.12	5.75	3.04
MAX	29	25	198	50	139	100	80	5.0	24	46	36	3.3
MIN	2.1	.83	.50	1.0	7.0	15	8.5	2.0	2.0	1.0	3.0	3.0
AC-FT	256	357	884	277	3040	3480	1600	237	243	315	354	181

CAL YR 1978 TOTAL 1919.20 MEAN 5.26 MAX 198 MIN .06 AC-FT 3810
WTR YR 1979 TOTAL 5656.03 MEAN 15.5 MAX 198 MIN .50 AC-FT 11220

09395500 PUERCO RIVER AT GALLUP, NM

WATER-QUALITY RECORDS

PERIOD OF RECORD--Water years 1975-77, 1978

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
JUL												
17...	1300	11	8300	3.4	25.0	2800	2800	220	540	370	3.1	21
19...	1350	11	4300	7.2	29.0	--	--	--	--	--	--	22

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
JUL											
17...	0	6600	160	.0	180	8710	9.7	180	510	580000	260
19...	--	--	--	--	--	--	--	--	--	--	--

09430500 GILA RIVER NEAR GILA, NM

LOCATION.--Lat 33°03'40", long 108°32'12", in NE¼NW¼ sec.30, T.14 S., R.16 W., Grant County, Hydrologic Unit 15040001, on left bank at Hooker damsite, 1.6 mi (2.6 km) upstream from Mogollon Creek, 7 mi (11 km) northeast of Gila, and at mile 572.5 (921.2 km).

DRAINAGE AREA.--1,864 mi² (4,828 km²).

PERIOD OF RECORD.--April to December 1914, December 1927 to current year. Monthly discharge only December 1927 to September 1930, published in WSP 1313.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1944 (M), 1949 (M). WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Datum of gage is 4,655.8 ft (1,419.09 m) National Geodetic Vertical Datum of 1929, (river-profile survey). Prior to Dec. 31, 1928, at site 5 mi (8 km) upstream at different datum. Dec. 31, 1928, to Jan. 7, 1942, at site 200 ft (61 m) upstream at same datum.

REMARKS.--Records good except those for December, which are fair. Diversions for irrigation of about 500 acres (2.0 km²) above station. Several observations were made during the year.

AVERAGE DISCHARGE.--52 years (water years 1928-79), 140 ft³/s (3.965 m³/s), 101,400 acre-ft/yr (125 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 32,400 ft³/s (918 m³/s) Dec. 18, 1978, gage height, 12.5 ft (3.81 m), from floodmark, from rating curve extended above 7,000 ft³/s (200 m³/s) on basis of slope-area measurement of peak flow; maximum gage height, 17.2 ft (5.24 m) from flood mark, Sept. 29, 1941; minimum, 14 ft³/s (0.40 m³/s) July 15, 1971.

EXTREMES OUTSIDE PERIOD OF RECORD.--Other major floods occurred in November 1905, December 1906, and January 1916.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 600 ft³/s (17 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 25	1215	9,430	267	9.74	2.969	Feb. 17	0415	4,100	116	4.79	1.460
Dec. 18	2330	a*32,400	918	12.5	3.810	Mar. 9	2000	1,230	34.8	2.98	0.908
Dec. 31	2100	1,480	41.9	2.75	0.838	Apr. 19	2345	715	20.2	2.21	0.674
Jan. 18	1045	5,600	159	5.51	1.679	Aug. 15	2230	946	26.8	2.48	0.756

a From rating curve extended above 7,000 ft³/s (200 m³/s) as explained above.

Minimum discharge, 34 ft³/s (0.96 m³/s) Oct. 1-7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	34	59	426	1110	270	553	508	478	227	82	187	52
2	35	61	351	582	285	552	477	465	236	79	94	50
3	35	58	292	486	271	540	448	445	237	79	75	51
4	34	59	247	438	267	493	412	425	247	75	70	52
5	34	59	216	385	314	459	371	376	331	71	69	52
6	34	58	210	492	310	438	350	337	279	69	67	52
7	36	57	205	612	319	444	357	333	259	66	63	51
8	36	56	174	552	341	577	399	349	234	65	63	51
9	36	57	144	480	399	973	443	345	223	63	78	50
10	35	58	128	438	496	1160	495	341	214	59	76	50
11	35	65	133	395	566	1030	518	311	193	54	71	49
12	36	70	146	365	609	917	457	276	173	52	78	48
13	36	272	121	360	710	850	415	248	159	49	98	47
14	35	262	115	365	961	851	388	225	150	47	97	49
15	36	186	117	340	1410	898	391	213	144	47	317	66
16	38	146	130	380	2590	896	442	220	137	53	362	95
17	38	122	137	582	3340	921	536	247	135	60	223	89
18	38	108	7610	3960	2100	879	602	267	127	91	164	79
19	39	97	19600	2590	1570	759	674	274	118	105	132	73
20	41	89	7500	1460	1420	656	677	275	113	95	116	68
21	50	84	3350	948	1250	615	632	283	109	102	104	64
22	59	80	2210	712	1150	617	592	267	107	129	94	62
23	65	80	1540	589	986	560	563	239	103	117	83	58
24	69	692	1090	489	831	517	568	227	96	98	73	56
25	73	7170	821	504	691	500	592	260	92	82	67	54
26	70	3400	652	499	611	501	575	314	88	77	62	51
27	67	1670	520	417	607	511	566	313	90	77	58	50
28	64	1010	434	341	594	535	560	281	90	70	54	50
29	61	704	380	338	---	584	541	253	87	73	54	49
30	59	536	392	309	---	613	512	233	84	86	54	50
31	56	---	1200	271	---	553	---	228	---	77	54	---
TOTAL	1414	17425	50591	21789	25268	20952	15061	9348	4882	2349	3257	1718
MEAN	45.6	581	1632	703	902	676	502	302	163	75.8	105	57.3
MAX	73	7170	19600	3960	3340	1160	677	478	331	129	362	95
MIN	34	56	115	271	267	438	350	213	84	47	54	47
AC-FT	2800	34560	100300	43220	50120	41560	29870	18540	9680	4660	6460	3410

CAL YR 1978 TOTAL 120382 MEAN 330 MAX 19600 MIN 25 AC-FT 238800
WTR YR 1979 TOTAL 174054 MEAN 477 MAX 19600 MIN 34 AC-FT 345200

09430600 MOGOLLON CREEK NEAR CLIFF, NM
(Hydrologic bench-mark station)

LOCATION.--Lat 33°10'01", long 108°38'58", in SE¼SE¼ sec. 13, T.13 S., R.18 W., Grant County, Hydrologic Unit 15040001, on right bank 0.3 mi (0.5 km) downstream from Rain Creek, 0.8 mi (1.3 km) downstream from Gila Wilderness Boundary, 12 mi (19 km) upstream from mouth, and 14 mi (23 km) north of Cliff.

DRAINAGE AREA.--69 mi² (179 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--March 1967 to current year.

GAGE.--Water-stage recorder. Altitude of gage is 5,440 ft (1,658 m), from topographic map.

REMARKS.--Water-discharge records good except those for December, which are poor.

AVERAGE DISCHARGE.--12 years, 31.2 ft³/s (0.884 m³/s), 22,600 acre-ft/yr (27.9 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,800 ft³/s (306 m³/s) Aug. 12, 1967, gage height, 13.7 ft (4.18 m), from floodmarks, from rating curve extended above 220 ft³/s (6.23 m³/s) on basis of slope-area measurement of peak flow; no flow at times.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 160 ft³/s (4.5 m³/s), revised, and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 24	2215	5,220	148	9.80	2.987
Dec. 18	Unknown	a*10,100	286	12.4	3.780
Jan. 18	0100	905	25.6	4.43	1.350
Feb. 16	2145	408	11.6	3.27	0.997
Mar. 9	1315	211	5.98	2.63	0.802
Apr. 18	0500	249	7.05	2.84	0.866
Aug. 15	0200	263	7.45	2.92	0.890

a From rating curve extended above 270 ft³/s (7.65 m³/s) on basis of slope-area measurement of peak flow.

No flow at times.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	2.7	38	109	54	91	94	103	28	1.8	6.6	1.4
2	.00	2.6	33	70	49	93	94	89	26	1.6	3.0	1.2
3	.00	2.3	28	56	49	87	87	82	23	1.5	2.1	1.2
4	.00	2.0	24	51	51	86	78	69	25	1.3	2.2	1.3
5	.00	2.0	24	58	58	84	78	67	33	1.1	1.7	1.2
6	.00	2.0	23	112	60	86	97	77	30	1.0	1.5	1.2
7	.00	1.8	20	107	64	105	128	79	26	.93	1.2	1.1
8	.00	1.8	20	91	73	147	149	71	24	.88	1.2	1.1
9	.00	1.7	14	80	96	197	157	62	22	.74	1.1	.99
10	.00	1.6	15	70	126	188	143	49	17	.66	1.2	.89
11	.00	16	16	62	150	186	115	40	15	.57	2.6	.87
12	.00	105	16	65	151	176	95	34	14	.56	6.8	.85
13	.00	65	17	75	180	174	84	32	13	.50	18	.99
14	.00	33	17	64	225	179	88	39	11	.49	17	1.3
15	.00	22	17	54	259	163	131	48	10	.51	120	2.0
16	.00	17	17	66	355	165	188	58	9.7	.76	61	2.2
17	.00	13	101	164	345	165	201	54	9.1	.77	31	2.4
18	.00	11	4000	554	300	138	217	49	8.0	3.5	22	2.1
19	.00	9.7	6000	252	275	114	200	46	7.0	2.9	14	1.5
20	.00	8.6	700	160	250	96	178	47	6.0	3.0	10	1.3
21	9.0	8.1	450	125	200	91	155	37	5.0	6.4	8.3	1.2
22	15	7.8	300	110	175	84	144	30	4.5	11	6.2	.97
23	7.9	9.8	190	92	135	78	162	37	4.1	11	4.7	.84
24	21	1730	130	81	110	76	171	49	3.3	3.5	3.6	.73
25	10	2190	80	80	95	82	152	53	2.9	2.2	2.8	.59
26	8.0	359	50	70	88	95	149	47	2.7	2.0	2.3	.50
27	5.4	145	40	60	91	108	144	44	2.9	1.8	2.1	.41
28	4.5	98	35	60	88	116	135	36	2.5	1.9	1.8	.34
29	3.8	67	41	57	---	120	123	33	2.3	1.7	1.6	.26
30	3.4	49	85	57	---	107	112	32	2.0	2.4	1.7	.21
31	2.9	---	174	58	---	98	---	30	---	4.6	1.5	---
TOTAL	90.90	4984.5	12715	3170	4152	3775	4049	1623	389.0	73.57	360.8	33.14
MEAN	2.93	166	410	102	148	122	135	52.4	13.0	2.37	11.6	1.10
MAX	21	2190	6000	554	355	197	217	103	33	11	120	2.4
MIN	.00	1.6	14	51	49	76	78	30	2.0	.49	1.1	.21
AC-FT	180	9890	25220	6290	8240	7490	8030	3220	772	146	716	66

CAL YR 1978 TOTAL 31092.12 MEAN 85.2 MAX 6000 MIN .00 AC-FT 61670
WTR YR 1979 TOTAL 35415.91 MEAN 97.0 MAX 6000 MIN .00 AC-FT 70250

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)
JAN 12...	1212	64	142	7.2	11.0	4.5	10.6	42	15	12	3.0	5.6
MAR 23...	1223	76	103	8.1	14.0	7.0	10.1	40	18	11	3.1	4.7
APR 26...	1426	139	69	7.7	26.5	11.5	9.1	19	8	5.6	1.2	3.7
JUN 13...	1713	12	104	7.6	31.0	18.5	7.9	39	15	12	2.1	5.5
AUG 29...	1330	1.5	160	8.3	29.0	20.5	7.6	61	16	18	3.8	8.1

DATE	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	CYANIDE TOTAL (MG/L AS CN) (00720)
JAN 12...	.4	.8	27	24	1.7	.3	21	100	85	.01	.040	.00
MAR 23...	.3	.8	22	18	1.4	.2	19	74	71	.00	.030	--
APR 26...	.4	.8	11	12	.8	.2	19	61	50	.01	.020	.00
JUN 13...	.4	1.3	24	15	1.3	.3	20	74	72	.01	.010	--
AUG 29...	.5	1.2	45	23	1.7	.4	21	111	104	.23	.010	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)
JAN 12...	1212	1	0	1	0	2	40
APR 26...	1426	2	0	0	0	15	130

DATE	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)
JAN 12...	9	0	.0	1	0	0
APR 26...	22	0	.2	0	2	20

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

WATER-QUALITY RECORDS

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
JAN 12...	1212	<1.3	<.4	1.2	<.4	1.1	<.4	.03	.08

PESTICIDE ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	PCB, TOTAL (UG/L) (39516)	PCB, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39519)	ALDRIN, TOTAL (UG/L) (39330)	ALDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39333)	CHLOR-DANE, TOTAL (UG/L) (39350)	CHLOR-DANE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39351)	DDD, TOTAL (UG/L) (39360)	DDD, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39363)	DDE, TOTAL (UG/L) (39365)
JAN 12...	1212	.0	0	.00	.0	.0	0	.00	.0	.00

DATE	DDE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39368)	DDT, TOTAL (UG/L) (39370)	DDT, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39373)	DI-AZINON, TOTAL (UG/L) (39570)	DI-ELDRIN TOTAL (UG/L) (39380)	DI-ELDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39383)	ENDO-SULFAN, TOTAL (UG/L) (39388)	ENDRIN, TOTAL (UG/L) (39390)	ENDRIN, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39393)
JAN 12...	.0	.00	.0	.00	.00	.0	.00	.00	.0

DATE	ETHION, TOTAL (UG/L) (39398)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39413)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	HEPTA-CHLOR EPOXIDE TOT. IN BOTTOM MATL. (UG/KG) (39423)	LINDANE TOTAL (UG/L) (39340)	LINDANE TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39343)	MALA-THION, TOTAL (UG/L) (39530)	METHYL PARA-THION, TOTAL (UG/L) (39600)
JAN 12...	.00	.00	.0	.00	.0	.00	.0	.00	.00

DATE	METHYL TRI-THION, TOTAL (UG/L) (39790)	PARA-THION, TOTAL (UG/L) (39540)	TOX-APHENE, TOTAL (UG/L) (39400)	TOXA-PHENE, TOTAL IN BOT-TOM MA-TERIAL (UG/KG) (39403)	TOTAL TRI-THION (UG/L) (39786)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	MIREX, TOTAL (UG/L) (39755)
JAN 12...	.00	.00	0	0	.00	.00	.00	.00	.00

09430600 MOGOLLON CREEK NEAR CLIFF, NM -- Continued

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI- FORM, TOTAL, IMMED. (COLS. PER 100 ML) (31501)	COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JAN				
12...	1212	12	1	3
MAR				
23...	1223	15	0	0
APR				
26...	1426	23	0	5
JUN				
13...	1713	520	2	22
AUG				
29...	1330	70	1	10

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)
OCT					
27...	1045	5.8	9.0	2	.03
NOV					
11...	1210	5.3	10.0	1	.01
27...	1515	121	6.0	1	.33
DEC					
05...	1435	21	5.0	1	.06
11...	1220	16	1.0	1	.04
JAN					
01...	1445	100	3.0	6	1.6
12...	1212	64	4.5	5	.86
20...	1015	160	4.0	12	5.2
FEB					
15...	1055	257	5.0	26	18
MAR					
23...	1223	76	7.0	5	1.0
APR					
25...	1405	149	11.0	6	2.4
26...	1426	139	11.5	7	2.6
MAY					
16...	1020	60	11.0	1	.16
JUN					
05...	1355	30	14.0	1	.08
13...	1713	12	18.5	2	.06
22...	1120	5.2	18.0	2	.03
JUL					
10...	1305	.65	25.0	0	.00
31...	1030	2.8	21.0	0	.00
AUG					
13...	1020	21	17.0	1	.06
29...	1330	1.5	20.5	1	.00
SEP					
03...	1335	1.1	23.0	0	.00
17...	1205	2.4	16.0	0	.00

09431100 MANGAS CREEK BELOW MANGAS SPRINGS, NM

LOCATION.--Lat 32°50'57, long 108°31'13", in SE¼SW¼ sec.5, T.17 S., R.16 W., Grant County, Hydrologic Unit 15040002, 0.1 mi (0.2 km) upstream from Blacksmith Canyon and 15 mi (24 km) southeast of Gila.

DRAINAGE AREA.--177 mi^2 (458 km^2).

PERIOD OF RECORD.--Water years 1970 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
NOV 10...	1315	3.5	583	8.2	14.0	240	36	73	13	24	.7	2.5
FEB 08...	1710	4.2	607	8.1	15.0	250	64	77	15	30	.8	3.2
MAY 16...	1400	3.2	561	8.1	19.0	240	73	76	13	26	.7	2.0
JUL 11...	1330	2.9	542	8.1	23.0	200	31	59	13	30	.9	2.7
SEP 11...	1130	3.9	558	8.0	22.0	240	63	76	13	29	.8	2.7

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
NOV 10...	200	67	16	.4	31	--	--	5.9	--	--	--
FEB 08...	190	84	13	.5	28	--	392	6.1	--	--	--
MAY 16...	170	75	15	.5	28	330	359	4.9	.06	40	0
JUL 11...	170	74	11	.5	31	--	347	5.4	--	--	--
SEP 11...	180	83	10	.5	33	376	380	5.6	.04	40	<10

09431500 GILA RIVER NEAR REDROCK, NM
(National stream-quality accounting network,
and radiochemical network station)

LOCATION.--Lat 32°43'37", long 108°40'30", in W½ sec.23, T.18 S., R.18 W., Grant County, Hydrologic Unit 15040002, on left bank 0.2 mi (0.3 km) downstream from Copper Canyon, 0.2 mi (0.3 km) upstream from lower end of box canyon, 4.7 mi (7.6 km) northeast of Redrock, 14 mi (23 km) downstream from Mangas Creek, and at mile 539.2 (867.6 km).

DRAINAGE AREA.--2,829 mi² (7,327 km²).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--September 1904 to February 1905 (gage heights only). May 1905 to December 1906, January to December 1907 and July to October 1908 (gage heights only). November 1908 to December 1910, January 1911 to January 1912 and May to June 1912 (gage heights only). August 1912 to September 1955, October 1962 to current year. Monthly or annual discharge only for some periods, published in WSP 1313. Published as "near Cliff" 1904-7.

REVISED RECORDS.--WSP 1213: 1906, 1911-15, 1931, 1936-37, 1939, 1941, 1944, 1945(P), 1946(M), 1947. WSP 1283: Drainage area. WSP 1926: 1955. WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Altitude of gage is 4,090 ft (1,247 m), from plane table survey. Prior to Dec. 31, 1907, nonrecording gage at site 13.5 mi (21.7 km) upstream at different datum. May 14, 1908, to July 16, 1909, nonrecording gage at site 0.2 mi (0.3 km) downstream at different datum.

REMARKS.--Water-discharge records good except those for December thru February, which are poor. Diversions for irrigation of about 5,000 acres (20 km²) above station. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--63 years (water years 1906, 1909-10, 1913-55, 1963-79), 202 ft³/s (5.721 m³/s), 146,300 acre-ft/yr (180 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,800 ft³/s (1,380 m³/s) Dec. 19, 1978, gage height, 29.8 ft (9.08 m) in gage well, 34.1 ft (10.4 m) from floodmarks, from rating curve extended above 9,500 ft³/s (269 m³/s) on basis of slope-area measurement of peak flow; minimum, 2.2 ft³/s (0.062 m³/s) Aug. 5, 1947.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 3,000 ft³/s (85 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 25	Unknown	24,700	700	19.6	5.974
Dec. 19	0600	a*48,800	1380	29.8	9.083
Jan. 1	0015	3,890	110	8.71	2.655
Jan. 18		Unknown		Unknown	
Feb. 17		Unknown		Unknown	
Aug. 16	Unknown	3,880	110	8.70	2.652

a From rating curve extended above 9,500 ft³/s (269 m³/s) as explained above.

Minimum discharge, 13 ft³/s (0.37 m³/s) Oct. 2.

09431500 GILA RIVER NEAR REDROCK, NM--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	62	571	2540	500	636	696	726	198	81	89	44
2	14	64	461	1200	470	635	633	678	204	81	132	42
3	16	52	374	691	450	641	575	646	210	79	81	35
4	20	53	333	474	460	606	531	598	223	75	87	35
5	15	52	300	368	480	565	486	552	412	75	65	34
6	15	53	275	465	500	538	461	488	378	73	82	35
7	27	51	266	924	520	547	475	458	325	68	61	34
8	24	54	244	772	560	627	528	446	267	67	76	35
9	18	59	211	637	600	965	595	464	221	63	54	32
10	24	52	200	583	700	1340	687	452	205	68	64	31
11	28	64	200	519	720	1260	727	407	183	64	57	39
12	23	72	200	483	750	1150	639	365	160	59	75	31
13	16	73	200	474	800	1060	562	320	150	55	110	26
14	17	227	200	501	1100	1030	521	280	140	38	200	29
15	21	190	200	510	2200	1070	516	249	130	30	500	41
16	30	162	186	520	3000	1050	615	244	120	25	800	41
17	20	156	190	1500	3500	1090	774	262	110	25	350	58
18	24	124	4500	6000	2500	1050	903	291	100	39	250	55
19	20	116	34000	3800	1900	918	1010	283	90	66	200	47
20	31	113	10000	1500	1700	812	1020	292	80	80	150	44
21	32	106	5000	1200	1600	740	956	319	78	74	137	41
22	46	100	1700	1000	1500	740	905	302	76	129	122	45
23	42	90	2100	900	1200	681	874	269	74	98	108	47
24	58	305	1200	800	1080	634	899	225	72	83	96	38
25	60	7000	760	750	832	614	906	241	70	71	95	34
26	60	5500	500	700	734	608	881	319	72	62	79	35
27	60	2000	300	660	693	618	862	375	70	58	69	38
28	60	1510	229	620	676	657	853	337	67	56	67	34
29	60	1010	148	580	---	724	822	283	74	77	65	31
30	60	739	124	540	---	802	788	231	83	63	65	40
31	60	---	3020	520	---	754	---	204	---	70	56	---
TOTAL	1015	20209	68192	32731	31725	25162	21700	11606	4642	2052	4442	1151
MEAN	32.7	674	2200	1056	1133	812	723	374	155	66.2	143	38.4
MAX	60	7000	34000	6000	3500	1340	1020	726	412	129	800	58
MIN	14	51	124	368	450	538	461	204	67	25	54	26
AC-FT	2010	40080	135300	64920	62930	49910	43040	23020	9210	4070	8810	2280

CAL YR 1978 TOTAL 158575.3 MEAN 434 MAX 34000 MIN 3.6 AC-FT 314500
WTR YR 1979 TOTAL 224627.0 MEAN 615 MAX 34000 MIN 14 AC-FT 445500

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1967 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	NESS (MG/L AS CACO3) (00900)	HARD-NONCAR-BONATE (MG/L CACO3) (00902)	DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-DIS-SOLVED (MG/L AS MG) (00925)
OCT												
12...	1155	21	433	8.5	--	16.5	--	--	140	--	40	9.0
24...	1025	59	406	8.2	--	12.0	--	--	--	--	--	--
NOV												
02...	1130	71	423	8.3	--	21.0	--	--	130	--	38	7.7
14...	0930	237	269	7.8	--	11.0	--	--	--	--	--	--
27...	1330	2090	277	7.9	--	7.0	--	--	110	54	29	8.5
28...	1330	1550	209	8.0	--	9.0	--	--	--	--	--	--
29...	1050	1020	221	8.0	--	7.0	--	--	--	--	--	--
DEC												
02...	1040	486	263	8.1	--	8.0	--	--	110	10	35	5.6
06...	1025	275	304	8.2	--	7.0	--	--	--	--	--	--
13...	1130	200	339	8.3	--	5.0	--	--	--	--	--	--
JAN												
14...	1410	534	274	8.1	--	9.0	--	--	90	7	26	6.2
APR												
25...	1855	902	204	7.9	24.5	17.5	24	8.2	56	8	16	3.9
MAY												
17...	1045	262	254	8.0	--	15.0	--	--	--	--	--	--
21...	1911	325	246	8.2	22.0	20.0	10	7.6	80	7	24	4.9
JUN												
04...	1125	208	258	8.2	--	17.0	--	--	--	--	--	--
14...	1114	140	303	8.1	31.5	18.0	33	8.5	97	0	29	6.0
JUL												
05...	1125	76	369	8.5	--	22.0	--	--	--	--	--	--
17...	1015	25	384	8.4	--	23.0	--	--	--	--	--	--
23...	1035	99	377	8.1	--	22.0	--	--	--	--	--	--
25...	1430	71	370	8.5	37.0	27.5	25	7.4	120	0	35	8.2
AUG												
16...	0945	800	200	7.7	24.5	17.5	140	8.2	73	3	21	4.9
21...	1040	137	357	8.2	--	21.0	--	--	--	--	--	--
SEP												
06...	1030	34	401	8.4	--	24.0	--	--	--	--	--	--
19...	0940	46	410	8.3	--	18.0	--	--	--	--	--	--
19...	1400	46	400	8.4	27.0	20.0	32	8.9	150	0	44	9.1

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
OCT												
12...	39	1.5	2.8	160	37	12	2.3	33	287	--	--	.02
24...	--	--	--	--	--	--	--	--	--	--	--	--
NOV												
02...	38	1.5	2.6	140	34	15	2.4	34	--	--	--	.28
14...	--	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	4.0	53	35	34	.8	28	--	--	--	.26
28...	--	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--	--
DEC												
02...	20	.8	2.1	100	34	9.5	1.4	30	--	--	--	.31
06...	--	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--	--
JAN												
14...	19	.9	1.8	83	38	10	1.2	31	--	185	--	.38
APR												
25...	12	.7	1.6	48	24	4.4	.9	30	127	122	.09	--
MAY												
17...	--	--	--	--	--	--	--	--	--	--	--	--
21...	18	.9	2.0	73	27	7.2	1.4	31	167	159	.15	--
JUN												
04...	--	--	--	--	--	--	--	--	--	--	--	--
14...	24	1.1	2.3	98	30	9.2	1.7	33	201	194	.15	--
JUL												
05...	--	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--	--
25...	35	1.4	2.9	130	30	23	1.9	38	253	252	.16	--
AUG												
16...	--	--	2.8	70	.0	6.6	.8	20	155	63	.32	--
21...	--	--	--	--	--	--	--	--	--	--	--	--
SEP												
06...	--	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--	--
19...	38	1.4	3.0	150	47	10	2.0	36	263	280	.10	.11

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	CARBON, ORGANIC SUSPENDED TOTAL (MG/L AS C) (00689)
OCT											
12...	--	--	--	--	.01	100	10	--	--	--	--
24...	--	--	--	--	--	--	--	--	--	--	--
NOV											
02...	--	--	--	--	.02	70	10	--	--	--	--
14...	--	--	--	--	--	--	--	--	--	--	--
27...	--	--	--	--	.04	70	150	--	--	--	--
28...	--	--	--	--	--	--	--	--	--	--	--
29...	--	--	--	--	--	--	--	--	--	--	--
DEC											
02...	--	--	--	--	.06	40	40	--	--	--	--
06...	--	--	--	--	--	--	--	--	--	--	--
13...	--	--	--	--	--	--	--	--	--	--	--
JAN											
14...	--	--	--	--	.05	40	10	--	--	--	--
APR											
25...	.01	.19	.29	.090	--	--	--	--	4.4	--	--
MAY											
17...	--	--	--	--	--	--	--	--	--	--	--
21...	.02	.16	.33	.070	--	--	10	10	--	3.6	.9
JUN											
04...	--	--	--	--	--	--	--	--	--	--	--
14...	.03	.09	.27	.120	--	--	--	--	4.3	--	--
JUL											
05...	--	--	--	--	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--	--	--	--	--
23...	--	--	--	--	--	--	--	--	--	--	--
25...	.01	.46	.63	.200	--	--	--	--	4.6	--	--
AUG											
16...	.16	7.0	7.5	2.70	--	--	160	20	--	9.8	27
21...	--	--	--	--	--	--	--	--	--	--	--
SEP											
06...	--	--	--	--	--	--	--	--	--	--	--
19...	--	--	--	--	--	--	--	--	--	--	--
19...	.03	.26	.39	.100	--	--	--	--	3.7	--	--

TRACE ELEMENT ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)
MAY									
21...	1911	1	3	0	6	0	0	10	0

DATE	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
MAY									
21...	1	0	14	2	860	10	6	0	40

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
MAY									
21...	10	.0	.0	0	0	0	0	20	10

RADIOCHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
NOV									
27...	1330	<1.9	140	1.9	75	1.7	70	.08	1.7
JUN									
14...	1114	<3.0	3.9	2.4	3.9	2.2	3.9	.03	1.3

MICROBIOLOGICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
APR			
25...	1855	20	62
MAY			
21...	1911	11	39
JUN			
14...	1114	100	170
JUL			
25...	1430	80	44
AUG			
16...	0945	8400	19000
SEP			
19...	1400	120	100

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
IDENTIFICATION OF PHYTOPLANKTON

DATE	MAY 21,79		JUN 14,79		JUL 25,79		SEP 19,79	
TIME	1911		1114		1430		1400	
TOTAL CELLS/ML	78		280		490		660	
DIVERSITY: DIVISION	0.0		1.0		1.1		1.0	
.CLASS	0.0		1.0		1.1		1.0	
..ORDER	0.0		1.2		1.4		1.2	
...FAMILY	1.3		2.1		2.1		2.1	
....GENUS	1.3		2.1		2.1		2.1	
ORGANISM	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT	CELLS /ML	PER-CENT
CHLOROPHYTA (GREEN ALGAE)								
.CHLOROPHYCEAE								
..CHLOROCOCCALES								
...SCENEDESMACEAE								
....SCENEDESMUS	--	-	--	-	230#	47	--	-
..VOLVOCALES								
...CHLAMYDOMONADACEAE								
....CHLAMYDOMONAS	--	-	--	-	26	5	14	2
CHRYSOPHYTA								
.BACILLARIOPHYCEAE								
..CENTRALES								
...COSCINODISCACEAE								
....CYCLOTELLA	--	-	13	5	--	-	29	4
..PENNALES								
...ACHNANTHACEAE								
....ACHNANTHES	--	-	--	-	--	-	14	2
....COCCONEIS	13#	17	77#	27	52	11	43	7
...CYMBELLACEAE								
....CYMBELLA	--	-	13	5	--	-	--	-
...NAVICULACEAE								
....NAVICULA	13#	17	26	9	77#	16	100#	15
...NITZSCHIACEAE								
....NITZSCHIA	52#	67	26	9	90#	18	290#	43
CRYPTOPHYTA (CRYPTOMONADS)								
.CRYPTOPHYCEAE								
..CRYPTOMONADALES								
...CRYPTOMONADACEAE								
....CRYPTOMONAS	--	-	--	-	13	3	--	-
CYANOPHYTA (BLUE-GREEN ALGAE)								
.CYANOPHYCEAE								
..HORMOGONALES								
...NOSTOCACEAE								
....ANABAENA	--	-	--	-	--	-	170#	26
...OSCILLATORIACEAE								
....OSCILLATORIA	--	-	130#	45	--	-	--	-

NOTE: # - DOMINANT ORGANISM; EQUAL TO OR GREATER THAN 15%
* - OBSERVED ORGANISM, MAY NOT HAVE BEEN COUNTED; LESS THAN 1/2%

09431500 GILA RIVER NEAR REDROCK, NM -- Continued

QUALITATIVE AND ASSOCIATED QUANTITATIVE ANALYSES OF BIOLOGICAL DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

PERIPHYTON

DATE	TIME	LENGTH OF EXPO- SURE (DAYS) (00022)	PERI- PHYTON BIOMASS TOTAL DRY WEIGHT G/SQ M (00573)	PERI- PHYTON BIOMASS ASH WEIGHT G/SQ M (00572)	CHLOR-A PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70957)	CHLOR-B PERI- PHYTON CHROMO- GRAPHIC FLUOROM (MG/M2) (70958)	BIOMASS CHLORO- PHYLL RATIO PERI- PHYTON (UNITS) (70950)	SAMPLING METHOD
JUN								
14...	1114	25	.470	.390	.990	1.11	80.8	Polyethylene strip

INSTANTANEOUS SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SEDI- MENT DIS- CHARGE, SUS- PENDED (T/DAY) (80155)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
OCT						
12...	1155	21	16.5	43	2.4	--
24...	1025	59	12.0	286	46	--
NOV						
02...	1130	71	21.0	216	41	--
14...	0930	237	11.0	2680	1720	--
28...	1330	1550	9.0	1150	4810	--
29...	1050	1020	7.0	782	2150	--
DEC						
02...	1040	486	8.0	186	244	--
06...	1025	275	7.0	77	57	--
13...	1130	200	5.0	10	5.4	--
JAN						
14...	1410	534	9.0	44	63	89
24...	1130	800	4.0	119	257	90
APR						
25...	1855	902	17.5	298	726	20
MAY						
17...	1045	262	15.0	74	52	85
19...	1911	276	20.0	75	56	44
JUN						
04...	1125	208	17.0	32	18	75
14...	1114	140	18.0	510	193	13
JUL						
05...	1125	76	22.0	28	5.7	--
11...	1005	50	20.0	18	2.4	--
17...	1015	25	23.0	12	.81	--
23...	1035	99	22.0	141	38	--
25...	1600	69	27.5	69	13	96
AUG						
16...	0945	800	17.5	6520	14100	93
21...	1040	137	21.0	121	45	--
SEP						
06...	1030	34	24.0	14	1.3	94
19...	0940	46	18.0	64	7.9	--
19...	1400	46	20.0	59	7.3	84

09432000 GILA RIVER BELOW BLUE CREEK, NEAR VIRDEN, NM

LOCATION.--Lat 32°38'53", long 108°50'43", in SE¼SW¼ sec.18, T.19 S., R.19 W., Grant County, Hydrologic Unit 15040002, on left bank at head of canyon, 1.4 mi (2.3 km) downstream from Blue Creek, 10 mi (16 km) east of Virden, 16 mi (26 km) upstream from New Mexico-Arizona State line, and at mile 523.6 (842.5 km).

DRAINAGE AREA.--3,203 mi² (8,296 km²), excluding Animas River Basin.

PERIOD OF RECORD.--May to November 1914, March to September 1915, July 1927 to current year. July 1927 to May 1931 monthly discharge only, published in WSP 1313, computed as sum of flow at Virden Bridge, 9 mi (14 km) downstream, and in Sunset Canal. Published as Gila River near Duncan, AZ, 1914-15 and as Gila River at Fuller's Ranch, near Duncan, AZ, 1931-38.

REVISED RECORDS.--WSP 1283: Drainage area. WSP 1313: 1929, 1931-32(M).

GAGE.--Water-stage recorder. Altitude of gage is 3,875 ft (1,181 m), from river-profile map. May 11, 1914, to Sept. 30, 1915, at site 6 mi (10 km) downstream, 1,000 ft (300 m) upstream from intake of Sunset Canal. June 1 to July 7, 1931, nonrecording gage at present site and datum.

REMARKS.--Records good except those for period of no gage height record, Feb. 23 to July 18, which are poor. Station is above all Duncan Valley diversions. Diversions for irrigation of about 6,200 acres (25 km²) above station.

AVERAGE DISCHARGE.--52 years (water years 1927-79), 185 ft³/s (5.239 m³/s), 134,000 acre-ft/yr (165 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 58,700 ft³/s (1,660 m³/s) Dec. 19, 1978, gage height, 29.00 ft (8.839 m) from rating curve extended above 38,000 ft³/s (1,080 m³/s) on basis of slope-area measurement of peak flow; minimum, 1 ft³/s (0.028 m³/s) July 14, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge (*), (from rating curve extended above 38,000 ft³/s or 1,080 m³/s on basis of slope-area measurement of peak flow) and peak discharge above base of 1,900 ft³/s (54 m³/s).

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 26	0200	13,400	379	17.20	5.243	Jan. 18	1000	10,700	303	13.35	4.069
Dec. 19	0930	*58,700	1,660	29.00	8.839	Feb. 17	1400	2,550	72.2	10.40	3.170
Dec. 31	1600	4,190	119	9.90	3.018	Aug. 14	2200	2,140	60.6	9.50	2.900

Minimum daily, 7.6 ft³/s (0.22 m³/s) Oct. 2, 3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	8.0	59	671	3100	550					70	84	45
2	7.6	61	546	1560	520					70	111	40
3	7.6	57	436	1060	510					70	105	35
4	7.8	52	382	865	510					70	100	36
5	8.2	54	337	740	560					65	87	34
6	8.0	51	310	763	850					60	90	34
7	10	53	292	1020	880					60	90	34
8	12	50	276	950	830					60	100	34
9	15	55	248	832	830					60	110	34
10	13	54	214	758	841					55	120	34
11	15	55	203	712	841					50	120	35
12	15	62	199	648	860					50	130	37
13	14	63	199	611	860					50	150	36
14	12	136	199	574	865					50	300	34
15	12	165	201	566	985					50	200	46
16	14	145	185	566	1160					55	180	52
17	16	143	190	680	2030					60	160	55
18	13	110	1920	7400	2300					64	140	62
19	13	100	33100	3850	2270					65	120	57
20	14	100	15000	1670	2110					75	120	53
21	29	95	5820	1480	2020					78	100	50
22	32	94	3570	1300	1950					90	90	50
23	47	83	2430	1200	1250					99	80	50
24	46	94	1810	1200	1100					95	70	40
25	47	5210	1380	1000	1000					85	65	40
26	47	7670	1200	970	950					79	65	40
27	51	2670	1010	905	880					74	65	40
28	59	1630	799	822	830					72	60	40
29	59	1150	643	750	---					80	60	38
30	59	875	546	710	---					90	55	34
31	56	---	2730	660	---					84	50	---
TOTAL	767.2	21196	77046	39922	31142	27300	20200	11100	5400	2135	3377	1249
MEAN	24.7	707	2485	1288	1112	881	673	357	180	68.9	109	41.6
MAX	59	7670	33100	7400	2300	---	---	---	---	99	300	62
MIN	7.6	50	185	566	510	---	---	---	---	50	50	34
AC-FT	1520	42040	152800	79190	61770	54150	40070	22020	10710	4230	6700	2480

CAL YR 1978 TOTAL 167654.9 MEAN 459 MAX 33100 MIN 3.5 AC-FT 332500
WTR YR 1979 TOTAL 240834.2 MEAN 660 MAX 33100 MIN 7.6 AC-FT 477700

09442680 SAN FRANCISCO RIVER NEAR RESERVE, NM

LOCATION.--Lat 33°44'12", long 108°46'14", in NE¼NW¼SE¼ sec.35, T.6 S., R.19 W., Catron County, Hydrologic Unit 15040004, on left bank 1,300 ft (400 m) downstream from Rainbow Bridge Canyon, 1.7 mi (2.7 km) northwest of Reserve, and at mile 563.1 (906.0 km).

DRAINAGE AREA.--350 mi² (907 km²), approximately.

PERIOD OF RECORD.--March 1959 to current year.

REVISED RECORDS.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Altitude of gage is 5,820 ft (1,774 m), from topographic map. Prior to Dec. 15, 1972 at site 1,800 ft (549 m) upstream at different datum.

REMARKS.--Records good except those for November, which are poor. Possible minor regulation by Luna Lake, 27 mi (43 km) upstream. Diversions for irrigation of about 280 acres (1.1 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--20 years, 25.9 ft³/s (0.733 m³/s), 18,760 acre-ft/yr (23.1 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,900 ft³/s (337 m³/s) Oct. 20, 1972, gage height, 7.47 ft (2.277 m) in gage well, 8.05 ft (2.454 m), from outside floodmarks, site and datum then in use, from rating curve extended above 9,000 ft³/s (255 m³/s) on basis of velocity-area study; maximum gage height, 9.40 ft (2.865 m) Nov. 25, 1978; minimum, 1.0 ft³/s (0.028 m³/s) Mar. 16, 1959.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage, about 15 ft (4.6 m), as determined in 1962 from old floodmarks. Major floods of Nov. 26, 1905 and Dec. 3, 1906, exceeded 20,000 ft³/s (566 m³/s) at Alma (downstream). See WSP 1313.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 450 ft³/s (12.7 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Nov. 25	Unknown	a*11,800	334	9.40	2.865
Dec. 19	0630	3,390	96.0	5.85	1.783
Jan. 17	1915	617	17.5	3.73	1.137

a From rating curve extended above 1,400 ft³/s (39.6 m³/s).

Minimum discharge, 2.7 ft³/s (0.08 m³/s) Oct. 13, 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979 MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.2	6.7	80	70	38	122	205	86	20	9.5	10	6.8
2	4.9	6.3	70	52	36	125	191	81	24	9.6	9.4	6.8
3	3.8	6.6	55	53	35	118	176	74	20	8.5	9.0	7.2
4	5.1	6.5	44	52	35	108	157	70	20	8.0	7.9	7.5
5	5.2	6.4	45	50	40	98	157	62	23	7.9	5.8	8.2
6	5.1	6.1	46	58	31	103	188	53	24	7.5	7.9	7.9
7	5.1	6.1	40	56	34	124	214	46	22	7.0	7.9	7.5
8	5.2	6.1	25	51	34	197	225	41	22	6.8	9.8	6.8
9	5.2	6.1	25	47	33	289	233	46	21	6.7	20	5.4
10	5.2	6.5	24	48	33	269	233	53	19	6.6	11	7.5
11	5.2	9.2	26	41	37	246	212	50	18	6.4	45	7.2
12	4.8	198	26	45	39	251	206	44	16	6.1	31	8.2
13	3.7	145	28	53	54	288	177	38	15	6.1	25	7.9
14	4.5	82	27	42	82	288	178	34	14	6.1	17	7.9
15	4.4	66	28	42	127	264	182	31	13	6.5	34	11
16	5.6	55	29	34	323	295	198	28	11	5.4	20	9.6
17	5.7	45	30	136	280	294	206	33	12	6.1	15	9.3
18	5.7	39	824	167	237	229	207	34	11	29	15	8.8
19	5.7	33	1610	104	238	214	197	30	10	18	15	8.5
20	5.9	28	510	78	227	190	179	28	10	15	14	8.2
21	14	25	230	67	196	187	164	28	10	18	12	9.5
22	8.9	23	183	66	170	186	153	26	9.8	14	11	8.9
23	6.9	21	146	55	134	191	147	25	9.0	12	10	8.4
24	7.2	970	120	56	120	192	142	27	9.0	11	9.8	8.0
25	8.6	3400	109	61	107	199	134	31	9.0	10	8.8	7.2
26	7.8	491	98	56	118	208	124	34	9.0	9.8	5.4	7.7
27	7.1	273	89	42	126	239	118	33	9.0	9.4	7.2	7.2
28	6.8	152	88	43	116	245	110	29	7.5	11	7.2	6.5
29	6.8	107	83	38	---	242	103	28	7.2	11	7.2	8.0
30	6.9	92	95	26	---	224	96	25	8.2	12	7.5	7.9
31	6.9	---	93	24	---	218	---	22	---	11	6.8	---
TOTAL	189.1	6317.6	4926	1813	3080	6443	5212	1270	432.7	312.0	422.6	237.5
MEAN	6.10	211	159	58.5	110	208	174	41.0	14.4	10.1	13.6	7.92
MAX	14	3400	1610	167	323	295	233	86	24	29	45	11
MIN	3.7	6.1	24	24	31	98	96	22	7.2	5.4	5.4	5.4
AC-FT	375	12530	9770	3600	6110	12780	10340	2520	858	619	838	471

CAL YR 1978 TOTAL 15694.8 MEAN 43.0 MAX 3400 MIN 1.7 AC-FT 31130
WTR YR 1979 TOTAL 30655.5 MEAN 84.0 MAX 3400 MIN 3.7 AC-FT 60810

09442692 TULAROSA RIVER ABOVE ARAGON, NM

LOCATION.--Lat 33°53'29", long 108°30'54", in NW¼ sec.9, T.5 S., R.16 W., Catron County, Hydrologic Unit 15040004, on right bank 0.4 mi (0.6 km) upstream from first diversion, 1.4 mi (2.3 km) northeast of Aragon, and 8 mi (13 km) upstream from Apache Creek.

DRAINAGE AREA.--94 mi^2 (244 km^2).

PERIOD OF RECORD.--July 1966 to current year. 1955 to 1965 at site 0.6 mi (1.0 km) upstream (drainage area, 89 mi^2 or 231 km^2), annual maximum only.

REVISED RECORD.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,750 ft (2,057 m), from topographic map.

REMARKS.--Records good. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--13 years, 3.37 ft^3/s (0.095 m^3/s), 2,440 acre-ft/yr (3.01 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 392 ft^3/s (11.1 m^3/s) Sept. 1, 1971, gage height, 3.13 ft (0.954 m), from rating curve extended above 80 ft^3/s (2.27 m^3/s) on basis of slope-area measurement of peak flow; minimum, 1.1 ft^3/s (0.031 m^3/s) July 22, 1969.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 20 ft^3/s (0.57 m^3/s) and maximum (*):

		Discharge		Gage height				Discharge		Gage height	
Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)	Date	Time	(ft^3/s)	(m^3/s)	(ft)	(m)
Dec. 18	1930	134	3.79	2.58	0.786	Mar. 8	2030	27	0.76	1.97	0.600
Dec. 29	1200	30	0.85	1.97	0.600	Apr. 6	0015	27	0.76	1.97	0.600
Feb. 16	1715	a*184	5.21	2.76	0.841	Apr.15	0115	35	0.99	2.10	0.640

a From rating curve extended above 80 ft^3/s (2.27 m^3/s) as explained above.

Minimum discharge, 2.4 ft^3/s (0.07 m^3/s) Nov. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.8	2.9	3.0	3.4	3.3	5.5	4.5	3.1	3.2	3.1	2.7	2.9
2	2.8	2.9	3.0	3.3	3.1	4.7	4.4	3.2	3.4	3.1	2.7	2.9
3	2.8	3.0	3.0	3.2	3.0	4.2	3.4	3.1	3.2	3.1	2.8	2.8
4	2.8	2.9	3.0	3.1	3.1	3.9	3.2	3.1	3.2	3.1	2.8	2.8
5	2.8	2.9	3.0	3.1	3.2	3.8	6.2	3.1	3.2	3.1	2.8	2.8
6	2.8	2.9	3.0	3.1	3.1	4.2	15	3.0	3.2	3.0	2.8	2.8
7	2.8	2.9	3.0	3.0	3.1	6.4	12	3.0	3.2	3.1	2.9	2.8
8	2.8	2.9	3.1	3.0	3.1	12	10	3.0	3.2	3.1	2.9	2.8
9	2.8	2.9	3.1	3.1	3.1	14	8.0	3.2	3.2	3.1	2.9	2.8
10	2.8	2.9	3.1	3.1	3.1	9.6	7.6	3.1	3.1	3.1	3.0	2.8
11	2.8	3.0	3.1	3.2	3.1	6.5	4.5	3.1	3.1	3.0	3.0	2.8
12	2.8	3.0	3.1	3.2	3.1	5.9	3.4	3.0	3.1	3.0	3.1	2.8
13	2.7	2.9	3.1	3.1	3.5	6.1	3.2	3.0	3.1	3.1	3.1	2.8
14	2.8	2.8	3.1	3.1	15	6.3	4.8	3.0	3.1	3.0	3.2	2.8
15	2.7	2.8	3.2	3.2	21	5.7	17	3.1	3.1	3.0	3.6	2.9
16	2.7	2.8	3.1	3.3	62	5.6	7.2	3.2	3.1	3.1	3.3	2.9
17	2.7	2.8	3.1	3.4	24	6.3	4.6	3.1	3.1	3.1	3.3	2.9
18	2.7	2.8	22	4.3	13	9.5	3.9	3.1	3.1	3.1	3.3	2.8
19	2.7	2.8	50	4.1	10	6.2	3.4	3.1	3.1	3.1	3.3	2.8
20	2.7	2.8	14	3.4	8.5	4.5	3.1	3.1	3.0	3.1	3.3	2.8
21	2.9	2.9	5.9	3.4	7.1	4.7	3.2	3.1	3.1	3.0	3.4	2.9
22	2.8	2.9	4.5	3.4	7.7	5.0	3.2	3.1	3.2	2.9	3.2	2.9
23	2.8	2.9	4.0	3.4	6.4	4.5	3.1	3.1	3.1	2.9	3.1	2.9
24	2.9	3.2	3.8	3.4	5.1	4.1	3.1	3.3	3.1	2.8	3.1	2.9
25	2.8	3.1	3.8	3.4	4.6	3.9	3.1	3.6	3.1	2.8	3.0	2.8
26	2.8	3.0	3.7	3.4	5.2	3.8	3.1	3.3	3.2	2.9	3.0	2.8
27	2.8	2.9	3.6	3.2	5.6	9.5	3.1	3.2	3.2	2.9	3.0	2.9
28	2.9	2.9	3.7	3.2	5.4	7.4	3.1	3.1	3.2	2.8	3.0	2.9
29	2.9	2.8	3.9	3.3	---	5.8	3.0	3.2	3.2	2.9	2.9	2.9
30	2.9	2.9	3.7	3.3	---	4.0	3.0	3.2	3.1	2.8	2.9	2.9
31	2.9	---	3.5	3.6	---	4.2	---	3.2	---	2.7	2.9	---
TOTAL	86.7	87.1	182.2	102.7	241.5	187.8	160.4	97.1	94.5	92.9	94.3	85.3
MEAN	2.80	2.90	5.88	3.31	8.63	6.06	5.35	3.13	3.15	3.00	3.04	2.84
MAX	2.9	3.2	50	4.3	62	14	17	3.6	3.4	3.1	3.6	2.9
MIN	2.7	2.8	3.0	3.0	3.0	3.8	3.0	3.0	3.0	2.7	2.7	2.8
AC-FT	172	173	361	204	479	373	318	193	187	184	187	169

CAL YR 1978 TOTAL 1167.8 MEAN 3.20 MAX 50 MIN 2.5 AC-FT 2320
WTR YR 1979 TOTAL 1512.5 MEAN 4.14 MAX 62 MIN 2.7 AC-FT 3000

09443000 SAN FRANCISCO RIVER NEAR ALMA, NM

LOCATION.--Lat 33°22'05", long 108°54'35", in SW¼SE¼ sec.4, T.11 S., R.20 W., Catron County, Hydrologic Unit 15040004, on right bank 1.2 mi (1.9 km) downstream from Alma, 4 mi (6 km) northwest of Glenwood, 6 mi (10 km) upstream from Whitewater Creek, and at mile 523.5 (842.3 km).

DRAINAGE AREA.--1,546 mi² (4,004 km²).

PERIOD OF RECORD.--September 1904 to January 1914, fragmentary (see WSP 1313), January 1964 to current year. Prior to October 1911, published as "at Alma".

REVISED RECORD.--WDR NM-78-1: 1977.

GAGE.--Water-stage recorder. Altitude of gage is 4,842 ft (1,476 m), from topographic map. Prior to Aug. 11, 1912, nonrecording gages at various sites, within 500 ft (150 m) of each other, 0.8 mi (1.3 km) upstream, at different datums. Aug. 11, 1912, to Feb. 2, 1914, nonrecording gage at approximately present site and datum. Jan. 10, 1964 to Nov. 1, 1972, at datum 3.00 ft (0.91 m) higher.

REMARKS.--Records fair except those for July and September, which are poor. Diversions for irrigation of about 1,600 acres (6.5 km²) above station. Several observations of water temperature were made during the year.

AVERAGE DISCHARGE.--15 years (water years 1965-79), 77.9 ft³/s (2.206 m³/s), 56,440 acre-ft/yr (69.6 hm³/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,600 ft³/s (867 m³/s) Oct. 20, 1972, gage height, 18.16 ft (5.535 m), present datum, from floodmarks in well, from rating curve extended above 3,500 ft³/s (99.1 m³/s) on basis of slope-area measurement of peak flow; no flow many days.

EXTREMES OUTSIDE PERIOD OF RECORD.--Major floods probably occurred Jan. 19 and Oct. 14, 1916, when discharges of 60,000 ft³/s (1,700 m³/s) or greater were computed at Clifton, AZ.

EXTREMES FOR CURRENT YEAR.--Peak discharges above base of 1,000 ft³/s (28 m³/s) and maximum (*):

Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)	Date	Time	Discharge (ft³/s)	Discharge (m³/s)	Gage height (ft)	Gage height (m)
Oct. 21	1230	1,060	30.0	5.76	1.756	Dec. 18	2100	a*24,500	694	15.84	4.828
Nov. 12	1415	1,790	50.7	6.48	1.975	Jan. 17	2330	13,500	382	11.10	3.383
Nov. 25	0130	19,400	549	14.38	4.383	Feb. 16	2000	2,900	82.1	6.55	1.996

a From rating curve extended above 8,700 ft³/s (246 m³/s).

No flow for many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.40	144	274	129	427	439	183	48	2.5	1.5	4.0
2	.00	.00	144	173	127	421	415	170	54	4.6	.50	3.0
3	.00	23	112	160	122	404	382	160	55	5.2	.00	2.0
4	.00	8.6	98	160	120	382	366	150	49	5.0	.00	1.0
5	.00	5.7	89	144	120	366	360	142	55	4.0	1.3	1.0
6	.00	4.5	84	190	115	360	366	132	54	4.0	.00	1.0
7	.00	3.5	76	215	108	388	377	120	50	3.5	.00	.50
8	.00	3.3	62	176	102	456	388	110	49	3.0	.38	.50
9	.00	3.1	50	170	124	572	439	112	45	3.0	1.7	.50
10	.00	3.7	48	167	139	586	444	122	41	3.0	.00	1.0
11	.00	826	49	155	137	515	439	112	34	2.0	16	1.0
12	.00	490	49	150	150	468	398	100	30	2.0	34	1.0
13	.00	338	51	144	183	515	371	93	28	2.0	49	1.0
14	.00	198	52	139	264	527	351	84	24	1.5	44	1.5
15	.00	124	51	139	636	557	351	73	24	1.0	50	1.5
16	.00	60	49	155	1600	598	388	61	18	4.0	58	1.5
17	.00	40	50	2180	1870	610	421	60	16	25	46	1.5
18	.00	30	9960	3910	1190	568	439	60	14	32	41	1.5
19	.00	25	12200	957	983	551	415	58	10	31	37	1.0
20	.00	23	2880	675	801	492	388	58	10	30	37	1.0
21	119	22	1420	398	704	462	356	55	10	40	33	1.0
22	34	20	798	338	733	486	328	56	9.8	38	28	1.0
23	16	18	550	292	645	456	315	55	9.8	35	24	1.0
24	13	3160	402	246	521	398	315	56	9.8	32	21	1.0
25	12	7350	302	258	439	421	302	56	9.8	29	17	.50
26	10	947	256	238	433	427	262	58	9.8	28	14	.50
27	10	601	212	197	444	474	242	58	6.8	26	9.0	.50
28	6.0	346	193	173	439	533	226	56	3.6	26	8.0	.50
29	2.0	228	179	180	---	545	212	56	.50	22	7.0	.50
30	1.0	161	256	147	---	551	197	54	.87	12	6.0	.50
31	1.3	---	414	120	---	474	---	50	---	8.0	5.0	---
TOTAL	224.30	15062.80	31280	13020	13378	14990	10692	2770	778.77	466.3	589.38	34.00
MEAN	7.24	502	1009	420	478	484	356	89.4	26.0	15.0	19.0	1.13
MAX	119	7350	12200	3910	1870	610	444	183	55	40	58	4.0
MIN	.00	.00	48	120	102	360	197	50	.50	1.0	.00	.50
AC-FT	445	29880	62040	25830	26540	29730	21210	5490	1540	925	1170	67

CAL YR 1978 TOTAL 62109.25 MEAN 170 MAX 12200 MIN .00 AC-FT 123200
WTR YR 1979 TOTAL 103285.55 MEAN 283 MAX 12200 MIN .00 AC-FT 204900

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM

LOCATION.--Lat 33°14'48", long 108°52'47", in NE¼NW¼ sec.23, T.12 S., R.20 W., Catron County, Hydrologic Unit 15040004, on left bank 0.2 mi (0.3 km) upstream from hot springs, 5 mi (8 km) south of Glenwood, 6 mi (10 km) downstream from Whitewater Creek, and at mile 511.5 (823.0 km).

DRAINAGE AREA.—1,653 mi^2 (4,281 km^2).

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.—October 1927 to current year. Monthly discharge only for some periods, published in WSP 1313.

REVISED RECORDS.--WSP 1213: 1931, 1934, 1936-37, 1940-42, 1943-44(M), 1945-47. WSP 1283: Drainage area. WDR NM-78-1: 1977.

GAGE.—Water-stage recorder. Altitude of gage is 4,560 ft (1,390 m), from topographic map; prior to Feb. 15, 1934, at site 4.5 mi (7.2 km) upstream at datum 98.82 ft (30.120 m) higher.

REMARKS.--Water-discharge records good except those for December, which are poor. Diversions for irrigation of about 2,000 acres (8.1 km^2) above station. National Weather Service gage height telemeter at station.

AVERAGE DISCHARGE.--52 years, 75.2 ft^3/s (2.130 m^3/s), 54,480 acre-ft/yr (67.2 hm^3/yr).

EXTREMES FOR PERIOD OF RECORD.—Maximum discharge, 24,000 ft^3/s (680 m^3/s), revised, Oct. 20, 1972, gage height, 16.61 ft (5.063 m), from rating curve extended 6,500 ft^3/s (184 m^3/s) on basis of slope-area measurements at gage heights 10.74 ft (3.274 m) and 15.6 ft (4.755 m); minimum, 1.5 ft^3/s (0.042 m^3/s) Aug. 6, 1961.

EXTREMES OUTSIDE PERIOD OF RECORD.—Major floods probably occurred Jan. 19 and Oct. 14, 1916 when discharges of 60,000 ft^3/s (1,700 m^3/s) or greater were computed for station at Clifton, AZ. On Nov. 26, 1905, a peak of 25,000 ft^3/s (708 m^3/s) was measured (by float-area method) at station at Alma (about 12 mi or 19 km upstream, drainage area, 1,560 mi^2 or 4,040 km^2); a similar measurement of 21,000 ft^3/s (595 m^3/s) was made at the Alma station for peak of Dec. 3, 1906.

EXTREMES FOR CURRENT YEAR.—Peak discharges above base of 800 ft^3/s (23 m^3/s) and maximum (*):

Date	Time	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
Oct. 21	1415	965	27.3	5.30	1.615
Nov. 12	1715	1,930	54.7	6.35	1.935
Nov. 25	0430	12,600	357	13.80	4.206
Dec. 18	Unknown	a*20,500	581	15.6	4.755
Jan. 18	0200	10,900	309	10.92	3.328
Feb. 16	2245	3,560	101	6.21	1.893
Mar. 10	1445	1,140	32.3	3.84	1.170

a From rating curve extended 6,500 ft^3/s (184 m^3/s) as explained above.

Minimum discharge, 11 ft^3/s (0.31 m^3/s) Oct. 12, 13.

REVISIONS.—The maximum discharges for some water years have been revised, as shown in the following table. They supersede figures published in the reports for 1973, 1975, 1976 and 1977.

Water Year	Date	Discharge (ft^3/s)	Discharge (m^3/s)	Gage height (ft)	Gage height (m)
1973	Oct. 20,1972	24,000	680	16.61	5.063
1975	Sept. 9,1975	7,840	222	10.80	3.292
1976	Sept.14,1976	3,910	111	8.74	2.664
1975	Aug. 13,1977	930	26.3	5.39	1.643

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM—Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	20	19	185	350	185	481	512	369	113	41	35	25
2	20	19	166	300	192	481	476	341	117	41	32	25
3	19	33	149	250	180	472	443	313	121	41	30	25
4	19	29	124	194	174	430	417	288	117	40	29	26
5	19	24	109	182	176	397	378	263	131	38	30	26
6	18	23	110	233	171	384	377	252	157	36	26	25
7	17	22	107	295	160	400	410	249	135	36	23	24
8	17	22	90	225	162	539	463	228	130	36	25	25
9	17	23	68	198	177	878	523	218	125	35	47	24
10	17	24	73	189	210	1030	558	207	111	34	40	23
11	15	29	73	178	238	933	558	195	98	31	39	24
12	14	886	77	166	251	868	500	175	89	26	50	25
13	13	510	78	165	306	810	456	157	84	25	70	24
14	16	118	80	161	416	833	414	148	80	26	93	25
15	16	68	81	155	747	836	417	134	75	28	107	28
16	15	51	79	174	1700	838	490	145	70	31	94	29
17	16	43	80	1270	2520	893	584	156	59	30	77	29
18	16	35	7080	5310	1400	820	659	156	51	35	68	27
19	17	31	14000	1670	1090	669	674	154	52	35	62	25
20	16	26	4000	815	1020	595	633	172	52	35	58	25
21	147	24	1580	529	852	540	574	152	52	48	58	24
22	52	22	1120	426	909	557	524	138	52	46	51	23
23	40	21	819	355	867	515	547	138	49	45	47	22
24	35	1770	607	303	658	494	573	147	48	41	43	23
25	32	7600	442	309	546	484	548	159	46	37	40	26
26	29	2390	297	296	515	488	505	152	45	34	37	27
27	26	729	250	251	526	510	476	145	45	33	32	28
28	24	448	230	225	505	541	461	131	44	38	29	28
29	22	321	210	225	---	597	430	122	42	37	27	28
30	20	236	300	201	---	592	397	123	41	37	26	26
31	19	---	450	173	---	538	---	120	---	37	26	---
TOTAL	783	15596	33114	15773	16853	19443	14977	5847	2431	1113	1451	764
MEAN	25.3	520	1068	509	602	627	499	189	81.0	35.9	46.8	25.5
MAX	147	7600	14000	5310	2520	1030	674	369	157	48	107	29
MIN	13	19	68	155	160	384	377	120	41	25	23	22
AC-FT	1550	30930	65680	31290	33430	38570	29710	11600	4820	2210	2880	1520

CAL YR 1978 TOTAL 74204 MEAN 203 MAX 14000 MIN 13 AC-FT 147200
WTR YR 1979 TOTAL 128145 MEAN 351 MAX 14000 MIN 13 AC-FT 254200

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM -- Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1963 to current year.

CHEMICAL ANALYSES, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
OCT												
11...	1420	14	503	8.5	25.0	140	--	39	10	49	1.8	3.9
23...	1345	40	380	7.7	16.0	--	--	--	--	--	--	--
NOV												
10...	1125	23	462	8.2	13.0	130	--	37	9.9	41	1.5	3.4
DEC												
01...	1350	180	322	8.2	11.0	130	--	39	8.4	20	.8	2.2
05...	1100	118	330	8.2	7.0	--	--	--	--	--	--	--
12...	1245	79	385	8.2	9.0	--	--	--	--	--	--	--
JAN												
03...	1220	250	319	8.1	6.0	130	0	37	8.8	19	.7	2.0
APR												
25...	1145	548	209	8.0	15.0	81	6	23	5.8	12	.6	1.7
MAY												
15...	0955	141	272	8.2	15.0	110	0	30	7.5	17	.7	2.0
JUN												
05...	1005	117	285	8.1	14.0	100	1	29	6.9	21	.9	1.8
26...	1150	46	287	8.2	24.0	--	--	--	--	--	--	--
JUL												
12...	0950	25	314	8.5	22.0	120	0	36	8.1	20	.8	2.3
30...	1035	36	316	8.2	21.0	--	--	--	--	--	--	--
AUG												
16...	0950	105	362	7.8	18.0	120	0	31	9.8	35	1.3	3.8
SEP												
04...	1150	27	338	8.4	25.0	120	0	32	10	25	.9	2.5
17...	0955	29	350	8.2	17.0	--	--	--	--	--	--	--

DATE	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
OCT											
11...	160	19	54	.8	42	--	--	.18	.03	70	<0
23...	--	--	--	--	--	--	--	--	--	--	--
NOV											
10...	160	14	44	.4	39	--	--	.28	.02	60	<0
DEC											
01...	130	22	13	.3	29	--	--	.32	.11	40	10
05...	--	--	--	--	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--	--	--	--	--
JAN											
03...	130	24	5.2	.3	32	--	209	.44	.07	30	0
APR											
25...	75	20	3.3	.2	32	--	144	.11	.10	40	10
MAY											
15...	110	19	7.8	.4	30	194	181	.17	.05	30	0
JUN											
05...	100	18	11	.3	30	--	179	.17	.04	30	50
26...	--	--	--	--	--	--	--	--	--	--	--
JUL											
12...	140	18	5.9	.4	33	--	208	.07	.00	10	<0
30...	--	--	--	--	--	--	--	--	--	--	--
AUG											
16...	140	26	19	.4	41	--	253	.52	--	40	320
SEP											
04...	150	17	5.6	.4	38	212	221	.13	--	20	<10
17...	--	--	--	--	--	--	--	--	--	--	--

09444000 SAN FRANCISCO RIVER NEAR GLENWOOD, NM -- Continued

INSTANTANEOUS SUSPENDED SEDIMENT AND PARTICLE SIZE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT DIS-CHARGE, SUS-PENDED (T/DAY) (80155)	SED. SUSP. FALL DIAM. % FINER THAN .002 MM (70337)	SED. SUSP. FALL DIAM. % FINER THAN .004 MM (70338)	SED. SUSP. FALL DIAM. % FINER THAN .016 MM (70340)
OCT								
11...	1420	14	25.0	19	.72	--	--	--
23...	1345	40	16.0	1200	130	55	82	94
NOV								
10...	1125	23	13.0	37	2.3	--	--	--
29...	0900	241	7.0	20600	13400	53	59	79
DEC								
01...	1350	180	11.0	290	141	--	--	--
05...	1100	118	7.0	94	30	--	--	--
12...	1245	79	9.0	76	16	--	--	--
JAN								
03...	1220	250	6.0	141	95	--	--	--
APR								
25...	1145	548	15.0	295	436	--	--	--
MAY								
15...	0955	141	15.0	53	20	--	--	--
JUN								
05...	1005	117	14.0	76	24	--	--	--
26...	1150	46	24.0	13	1.6	--	--	--
JUL								
12...	0940	26	22.0	7	.49	--	--	--
30...	1035	36	21.0	46	4.6	--	--	--
AUG								
16...	0950	105	18.0	2040	578	53	61	66
SEP								
04...	1150	27	25.0	3	.22	--	--	--
17...	0955	29	17.0	37	2.9	--	--	--

DATE	SED. SUSP. FALL DIAM. % FINER THAN .062 MM (70342)	SED. SUSP. FALL DIAM. % FINER THAN .125 MM (70343)	SED. SUSP. FALL DIAM. % FINER THAN .250 MM (70344)	SED. SUSP. FALL DIAM. % FINER THAN .500 MM (70345)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM (70332)	SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM (70333)
OCT							
11...	--	--	--	--	--	--	--
23...	--	--	--	--	98	99	100
NOV							
10...	--	--	--	--	--	--	--
29...	100	--	--	--	--	--	--
DEC							
01...	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--
12...	--	--	--	--	--	--	--
JAN							
03...	--	--	--	--	--	--	--
APR							
25...	--	--	--	--	--	--	--
MAY							
15...	--	--	--	--	--	--	--
JUN							
05...	--	--	--	--	--	--	--
26...	--	--	--	--	--	--	--
JUL							
12...	--	--	--	--	--	--	--
30...	--	--	--	--	--	--	--
AUG							
16...	78	88	99	100	--	--	--
SEP							
04...	--	--	--	--	--	--	--
17...	--	--	--	--	--	--	--

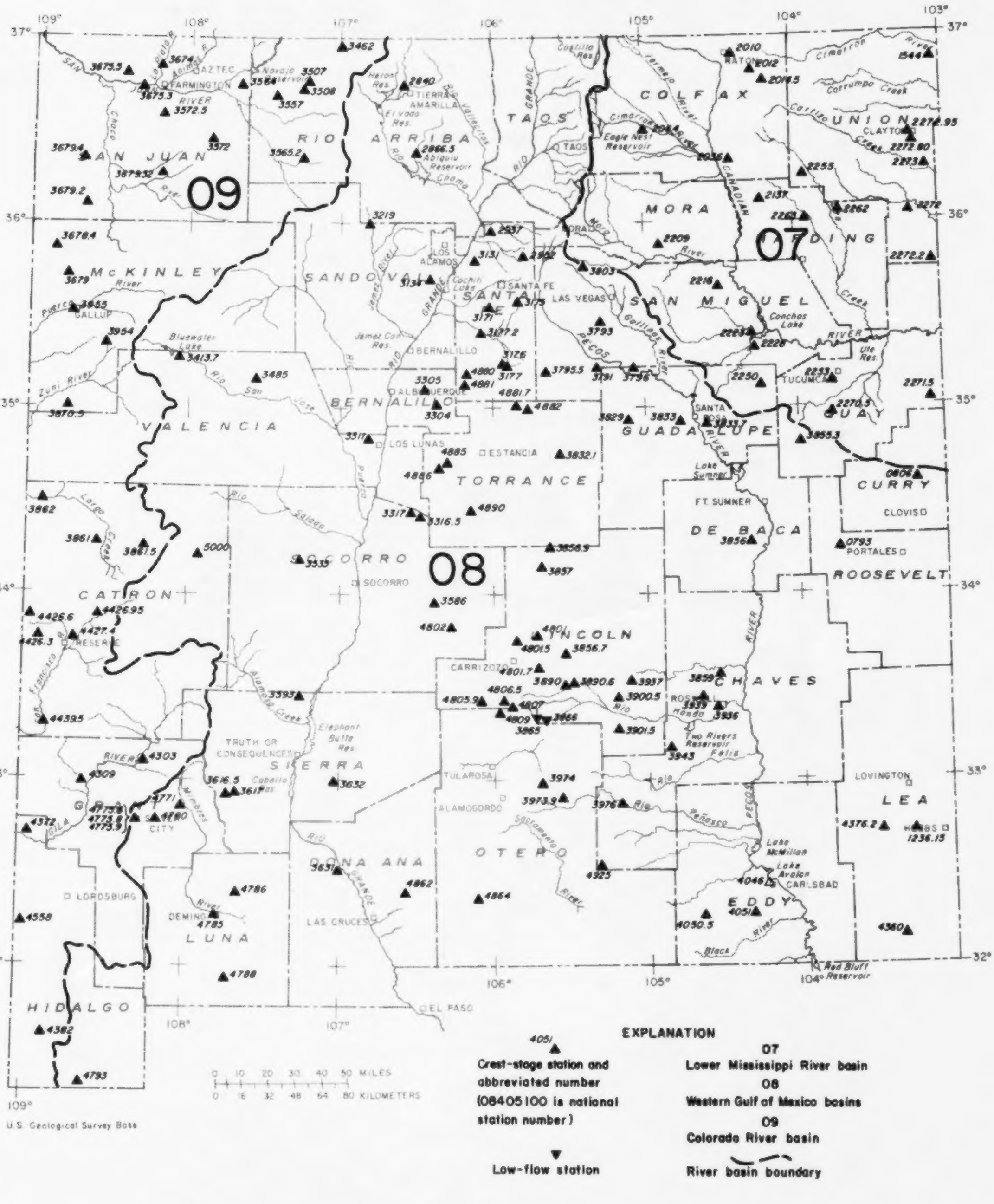

Figure 5.—Map of New Mexico showing location of partial-record stations.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or floodflow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are presented in two tables. The first is a table of discharge measurements at low-flow partial-record stations, and the second is a table of annual maximum stage and discharge at crest-stage stations. Discharge measurements made at miscellaneous sites for both low flow and high flow are given in a third table.

Low-flow partial-record stations

Measurements of streamflow in the area covered by this report made at low-flow partial-record stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. These measurements, when correlated with the simultaneous discharge of a nearby stream where continuous records are available, will give a picture of the low-flow potentiality of a stream. The column headed "Period of record" shows the water years in which measurements were made at the same, or practically the same, site.

Discharge measurements made at low-flow partial-record stations during water year 1979

Station No.	Station name	Location	Drainage area (mi^2)	Period of record	Measurements	
					Date	Discharge (ft^3/s)
		Rio Grande basin				
08386500	Rio Ruidoso near Ruidoso, N. Mex.	Lat 33°20'11", long 105°43'31", in NW¼SW¼SW¼ sec.19, T.11 S., R.13 E., Lincoln County at Mescalero Apache Indian Reservation boundary, 3.0 miles (4.8 km) west of Ruidoso.	17.2	1953-79	10-25-78	14
					11-30-78	30
					03-01-79	15
					04-09-78	52
					06-28-79	12
					08-29-79	7.6
					09-26-79	10
08386600	Carrizo Creek at Ruidoso, NM	Lat 33°19'27", long 105°30'13", in SW¼NW¼SW¼ sec.26, T.11 S., R.13 E., Lincoln County, at mouth, at Ruidoso.	24.2	1908-09 1953-79	10-25-78	4.9
					11-30-78	4.5
					01-30-79	11
					03-01-79	15
					04-09-79	19
					04-27-79	12
					06-28-79	4.4
					08-29-79	4.3
					09-26-79	4.5

Crest-stage partial-record stations

The following table contains annual maximum discharge for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each year is given. Information on some lower floods may have been obtained, and discharge measurements made for purposes of establishing the stage-discharge relation, but these are not published herein. The year given in the period of record column represents the first year of a period extending through the current year unless otherwise noted. For some stations, publication of discharge is delayed pending definition of stage-discharge relationship. Published maximums are for water years.

Annual maximum discharge at crest-stage partial-record stations

Station no.	name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Station Discharge (ft^3/s)
		Arkansas River Basin					
07154400	Carrizozo Creek near Kenton, Okla.	Lat 36°52'55", long 103°01'05", Union County, under bridge on New Mexico State Highway 18, 4 miles southwest of Kenton.	111	1953-	08-27-79	10.20	8,000
07201000	Raton Creek at Raton, N. Mex.	Lat 36°55'38", long 104°26'22", Colfax County, 60 ft above bridge on State Highway 72 at Raton.	14.4	1953-	10-21-78	1.04	125
07201200	Chicorica Creek tributary near Raton, N. Mex.	Lat 36°49'41", long 104°19'58", Colfax County, upstream from culvert on U.S. Highway 64-87, 7.7 miles southeast of Raton.	5.18	1971-	07-24-79	5.53	110
07201450	Green Mountain Arroyo near Raton, N. Mex.	Lat 36°47'00", long 104°15'42", Colfax County, about 1,500 feet upstream from bridge on U.S. Highway 64-87 12.8 miles southeast of Raton.	18.2	1971-	07-24-79	4.17	<40
07203600	Rio del Plano tributary near Taylor Springs, N. Mex.	Lat 36°26'59", long 104°22'34", Colfax County, 1.7 miles south of Sauble Ranch, 11.0 miles northeast of Taylor Springs.	6.71	1971-	07-25-79	6.99	80
07206400	Clear Creek near Ute Park, N. Mex.	Lat 36°31'35", long 105°10'30", Colfax County, Maxwell Grant, 0.25 mile upstream from mouth, and 4 miles southwest of Ute Park.	7.44	1962-67* 1968-	05-21-79	2.45	43
07213700	Canadian River tributary near Mills, N. Mex.	Lat 36°10'00", long 104°15'47", Harding County, on downstream end of left bridge abutment on State Highway 39, 6 miles north of Mills.	a4.2	1954-	- -79	(b)	-
07220900	Dog Creek near Shoemaker, N. Mex.	Lat 36°49'32", long 104°53'28", Mora County, 0.5 mile above Valmora-Shoemaker road, and 1.8 miles northwest of Shoemaker.	18.4	1954-	06-25-79	8.11	730
07221600	Lagartija Creek tributary near Sanchez, N. Mex.	Lat 35°39'21", long 104°24'57" San Miguel County, at bridge on State Highway 65, 0.9 mile northeast of Sanchez.	a1	1961-	05-21-79	4.03	(+)

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
Arkansas River Basin - Concluded							
07222300	Trementina Creek at Trementina, N. Mex.	Lat 35°29'28", long 104°24'59", San Miguel County, at bridge on State Highway 65, at Trementina.	a65	1959-	07-16-79	7.69	3,700
07222800	Garita Creek tributary near Variadero, N. Mex.	Lat 35°20'10", long 104°21'50", San Miguel County, 1.2 miles upstream from mouth, 6.3 miles southeast of Variadero.	a12	1971-	07-16-79	6.70	270
07225000	Pajarito Creek at Newkirk, N. Mex.	Lat 35°04'20", long 104°14'50" Guadalupe County, downstream side of bridge on U.S. Highway 66, 1 mile east of Newkirk.	55.0	1954-	05-21-79	6.14	2,050
07225300	Bluewater Creek near Tucumcari, N. Mex.	Lat 35°08'31", long 103°47'32", Quay County, in Tucumcari Metropolitan Park, 1,600 feet north of the park's southern boundary, and 4.8 miles southwest of Tucumcari.	15.2	1971-	- - 79	(e)	-
07226200	Bueyeros Creek at Bueyeros, N. Mex.	Lat 35°58'10", long 103°41'05", in E½ sec.7, T.20 N., R.31 E., Harding County, on right upstream wingwall of culvert on State Road 102 at Bueyeros.	a34	1957-	- - 79	(e)	-
07226300	Carrizo Creek near Roy, N. Mex.	Lat 36°02'58", long 103°57'48", Harding County, 800 ft below State Highway 120, and 15 miles northeast of Roy.	a68	1954-	05-20-79	4.15	450
07227050	Plaza Larga Creek tributary near Ragland, N. Mex.	Lat 34°48'29", long 103°45'35", Quay County, at culvert on State Highway 18, 1.2 miles northwest of Ragland.	.36	1952-	05-21-79	6.00	110
07227150	Arroyo del Puerto near Endee, N. Mex.	Lat 35°03'32", long 103°06'04", Quay County, at bridge on State Highway 93, 5.4 miles south of Endee.	a25	1961-	07-23-79	3.39	(+)
07227200	Tramperos Creek near Stead, N. Mex.	Lat 36°04'15", long 103°12'10", in NW°NW° sec.10, T.21 N., R.35 E., Union County, at bridge on State Highway 18, 2.1 miles south of Stead and 26 miles south Clayton.	a556	1966-73# 1974-	08-01-79	6.50	750
07227220	Fullingim Draw, near Nara Visa, N. Mex.	Lat 35°45'50", long 103°07'30", Union County upstream from culvert on State Highway 18, 11.3 miles north of Nara Visa.	15.1	1971-	08-01-79	7.90	650
07227295	Sand Draw tributary near Clayton, N. Mex.	Lat 36°23'20", long 103°19'05", Union County, above culvert on State Highway 58, 8 miles southwest of Clayton.	1.25	1952-	07-15-79	-	<5
07227300	Sand Draw near Clayton, N. Mex.	Lat 36°20'30", long 103°11'30", Union County, on downstream side of bridge on State Highway 18, 7.5 miles south of Clayton.	a42	1953-	07-15-79	3.49	(+)

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Brazos River basin					
08079300	Blackwater Draw tributary near Floyd, N. Mex.	Lat 34°14'52", long 103°44'51", Roosevelt County, 0.5 mile below section road and 10 miles west of Floyd.	a10	1963-	06-01-79	1.02	(+)
08080600	Running Water Draw near Clovis, N. Mex.	Lat 34°31'55", long 103°12'05", Curry County, 0.25 mile upstream from Highway 18 and 8 miles north of Clovis.	109	1953-56 1957-64‡ 1965-	07-26-79	1.16	< 100
08123615	Monument Draw near Monument, N. Mex.	Lat 32°41'48", long 103°16'10", SW¼SE¼ sec.32, T.18 S., R.37 E., Lea County upstream from culvert on U.S. Highway 62-180, 8 miles west of Hobbs, and 5 miles north of Monument.	17.2	1975-	06-08-79	0.87	(+)
		Rio Grande basin					
08284000	Rito de Tierra Amarilla at Tierra Amarilla, N. Mex.	Lat 36°41'55", long 106°33'25", Rio Arriba County, 400 ft below culvert on U.S. Highway 84, at Tierra Amarilla.	49.7	1957-79g	05-09-75 05-28-79	5.28 3.44	1,000 500
08286650	Canjilon Creek above Abiquiu Reservoir, N. Mex.	Lat 36°18'55", long 106°29'05", Rio Arriba County, in Piedra Lumbre Grant, 300 ft upstream from bridge on U.S. Highway 84, 0.2 mile northwest of entrance to Ghost Ranch and about 12 miles northwest of Abiquiu.	144	1965-	08-15-79	5.61	1,100
08293700	Arroyo Seco tributary near Pojoaque, N. Mex.	Lat 35°56'33", long 106°01'12", Santa Fe County, upstream from culvert on U.S. Highway 64-84-285, 3.5 miles north of Pojoaque.	.72	1971-	- -79	(e)	-
08295200	Rio en Medio near Santa Fe, N. Mex.	Lat 35°47'30", long 105°47'38", Santa Fe County, in Santa Fe National Forest, on right bank 300 feet east of Santa Fe Ski Basin parking area, and 10.8 miles northeast of Santa Fe.		1963-73‡ 1973-	06-08-79	1.47	11
08313400	Bland Canyon near Cochiti Pueblo, N. Mex.	Lat 35°42'11", long 106°24'56", Sandoval County, 200 ft south of Forest Service Road, 0.3 mile inside Santa Fe National Forest, 7.5 miles north of Cochiti.	7.57	1962-	08-30-78 06-02-79	2.25 2.25	h48 50
08317500	Galisteo Creek at Canoncito, N. Mex.	Lat 35°33'02", long 105°49'20", Santa Fe County, above railroad bridge, 0.2 mile above Apache Canyon at Canoncito.	11.3	1955-56 1959-	06-08-79	2.36	340
08317600	San Cristobal Arroyo near Galisteo, N. Mex.	Lat 35°22'55", long 105°51'05", Santa Fe County, at bridge on U.S. Highway 285, 5.5 miles east of Galisteo.	116	1955-	02-04-79	5.07	760

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (ft^2)	Period of record	Annual maximum Date	Gage height (feet)	Discharge (ft^3/s)
		Rio Grande basin - Continued					
08317800	Tarhole Canyon near Galisteo N. Mex.	Lat 35°21'55", long 105°50'40", Santa Fe County, at culvert on U.S. Highway 285, 6 miles southeast of Galisteo.	2.15	1952-	06-08-79	14.15	210
08317720	Canada de la Cueva near Galisteo, N. Mex.	Lat 35°26'13", long 106°00'45", Santa Fe County, 6.4 miles east of Cerrillos and 4.8 miles northwest of Galisteo.	1.79	1970-	06-08-79	2.79	92
08318900	San Pedro Creek near Golden, N. Mex.	Lat 36°13'45", long 106°18'00", Sandoval County, 1 mile below bridge on State Highway 10 and 5.5 miles southwest of Golden.	45.2	1953-	05-20-79	-.05	82
08321900	Rio de las Vacas near Senorita, N. Mex.	Lat 35°59'35", long 106°47'45", Sandoval County, at bridge on side road, 0.1 mile south of State Highway 126 and 6.5 miles east of Senorita.	26.8	1957-	07-19-79	4.75	510
08330400	Juan Toro Canyon near Miera, N. Mex.	Lat 35°00'57", long 106°20"14", Bernalillo County, 150 ft east of State Highway 10, 1 mile southeast of Cedro, and 4.5 miles northwest of Miera.	1.57	1959-	11-24-78	0.89	<40
08330500	Tijeras Arroyo at Albuquerque, N. Mex.	Lat 35°03'40", long 106°28'40", Bernalillo County, 300 ft south of U.S. Highway 66 and 0.4 mile southeast of city limits of Albuquerque.	75.3	1943-48# 1958-	- -79	-	0
08331100	Belen Highline Canal tributary near Los Lunas,	Lat 34°49'20", long 106°49'10", Valencia County, above culvert on Highway 6, 5.0 miles west of Los Lunas.	.16	1952-53 1955-	- - 79	-	0
08331650	Canada Montoso near Scholle, N. Mex.	Lat 34°23'11", long 106°28'37", County, 130 ft upstream from dip on abandoned highway, 500 ft upstream from bridge on U.S. Highway 60, 3.6 miles southwest of Scholle.	a35	1961-	05-27-79	3.08	680
08331700	Abo Arroyo tributary near Scholle, N. Mex.	Lat 34°24'10", long 106°30'35", Socorro County, at culvert on U.S. Highway 60, 2.5 miles southeast of junction of U.S. Highway 60, and State Highway 6, southwest of of Scholle.	.23	1954-	10-24-78	14.40	73
08332700	San Pablo Creek near Cuba, N. Mex.	Lat 35°56'55", long 106°56'44", Sandoval County, upstream from bridge on old section of State Highway 44 and 5.6 miles south	12.8	1970-	04-23-79	3.09	300

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Rio Grande basin - Continued					
08341370	Pine Canyon near Thoreau, N. Mex.	Lat 35°18'34", long 108°10'14", McKinley County, about 1 mile southwest of the north end of Bluewater Lake and about 7 miles southeast of Thoreau.	6.09	1969-	11-24-78	2.14	37
08348500	Encinal Creek near Casa Blanca, N. Mex.	Lat 35°08'35", long 107°27'55", Valencia County, 1.8 miles north of village of Encinal and 6.8 miles north of Casa Blanca.	6.19	1937-39* 1959-	- -79	-	0
08353500	La Jencia Creek near Magdalena, N. Mex.	Lat 34°09'45", long 107°12'35", Socorro County, 3.5 miles northeast of Magdalena.	195	1957-	07-17-79	4.95	2,600
08358600	Chupadera Wash tributary at Bingham, N. Mex.	Lat 33°51'39", long 106°22'06", Socorro County, 75 ft upstream from culvert on U.S. Highway 380, 0.1 mile west of Bingham.	1.29	1961	- -79	-	0
08359300	San Jose Arroyo near Monticello, N. Mex.	Lat 33°28'05", long 107°14'30", Sierra County, at head of box canyon just below major tributary, 800 ft below culvert on U.S. Highway 85, 13 miles Northeast of Monticello.	26.9	1959-	- -79	-	0
08361650	Percha Creek near Kingston, N. Mex.	Lat 32°55'05", long 107°38'55", Sierra County, at bridge on State Highway 180, 3.3 miles east of Kingston.	21.5	1953-	10-28-78	3.21	330
08361700	Percha Creek near Hillsboro, N. Mex.	Lat 32°54'55", long 107°36'05", Sierra County, 150 ft south of State Highway 180, and 2 miles west of Hillsboro.	35.4	1957-	- -79	(e)	-
08363100	Rio Grande tributary near Radium Springs, N. Mex.	Lat 32°30'05", long 106°57'05", Dona Ana County, above culvert on U.S. Highway 85, 120 ft above mouth, and 1.4 miles west of Radium Springs.	.40	1955-	11-01-78	4.45	72
08363200	Aleman Draw at Aleman, N. Mex.	Lat 33°00'00", long 107°00'20", Sierra County, on Santa Fe Railroad bridge, 140 ft above dip on Engle-Rincon road, and 0.26 mile west of Aleman.	25.5	1959-	07-19-79	4.03	560
08379100	Pecos River tributary near Sena, N. Mex.	Lat 35°18'37", long 105°23'37", San Miguel County, upstream from culvert on State Highway 3, 0.8 mile north of Sena.	1.24	1971-	- -79	(e)	-
08379300	Tecolote Creek at Tecolote, N. Mex.	Lat 35°27'20", long 105°16'55", San Miguel County, on bridge on U.S. Highway 85 at Tecolote.	122	1954-	05-20-79	6.20	850

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Rio Grande basin - Continued					
08379550	Cañon Blanco near Leyba, N. Mex.	Lat 35°13'14", long 105°40'12", San Miguel County, 0.2 mile south of White Lakes-Leyba road and 5.0 miles west of Leyba.	11.2	1971-	05-20-79	3.39	45
08379600	Pecos River tributary near Dilia, N. Mex.	Lat 35°12'50", long 105°04'50", Guadalupe County, above culvert on U.S. Highway 84, and 1.7 miles northwest of Dilia.	.16	1952-	09-14-79	0.94	14
08380300	Sandoval Canyon at Gallinas, N. Mex.	Lat 35°41'19", long 105°21'17", San Miguel County, about 500 ft upstream from culvert on State Highway 65, at north edge of Gallinas.	7.6	1957 1961-	05-20-79	2.00	180
08382900	Pecos River tributary near Pintada, N. Mex.	Lat 34°58'06", long 105°05'38", Guadalupe County, in Anton Chico Grant, 1,500 ft south of U.S. Highway 66, 6.8 miles north of Pintada.	.16	1961-	- -79	-	0
08383210	Pintada Arroyo tributary near Encino, N. Mex.	Lat 34°48'40", long 105°34'00", Torrance County, above culvert on U.S. Highway 285, 0.1 mile south of ranch road, and 12.5 miles northwest of Encino.	a1	1959-	- -79	(e)	-
08383300	Pintada Arroyo near Santa Rosa, N. Mex.	Lat 34°53'20", long 104°43'50", Guadalupe County, at bridge on U.S. Highway 54, and 4.5 miles southwest of Santa Rosa.	896	1959-	06-02-79	2.86	(+)
08383370	Pecos River tributary near Puerto de Luna, N. Mex.	Lat 34°52'35", long 104°38'16", Guadalupe County, 25 ft upstream from culvert on State Highway 91, 3.1 miles north of Puerto de Luna.	.37	1961-	- -79	(e)	-
08385530	Alamosa Creek tributary near Jordan, N. Mex.	Lat 34°47'44", long 103°58'07", Quay County, 500 ft upstream from dip on State Highway 156, 6.9 miles west of Jordon.	9.71	1962-	- -79	1.44	6.0
08385600	Yeso Creek near Fort Sumner, N. Mex.	Lat 34°16'32", long 104°17'28", De Baca County, at abandoned bridge 1 mile downstream from State Highway 20, and 14.5 miles south of Fort Sumner.	242	1937 1952-	- -79	-	0
08385670	Aragon Creek tributary near Encinoso, N. Mex.	Lat 33°43'35", long 105°31'43", Lincoln County, 0.3 mile upstream from wooden bridge on dirt road, 1.2 miles north of State Highway 48, 4.3 miles west	6.07	1961-	08-27-79	4.10	640

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage are (mi²)	Period of record	Annual maximum Date	Annual maximum Gage height (feet)	Annual maximum Discharge (ft³/s)
		Rio Grande basin - Continued					
08385690	Bonita Canyon tributary near Corona, N. Mex.	Lat 34°14'04", long 105°37'12", Lincoln County, above culvert on U.S. Highway 54, and 1.8 miles southwest of Corona.	a.6	1959-	- -79	(b)	<20
08385700	Cloud Canyon tributary near Gallinas, N. Mex.	Lat 34°07'53", long 105°40'57", Lincoln County, above culvert on U.S. Highway 54, and 2.0 miles southwest of Gallinas.	a10	1957-	- -79	(b)	<25
08385900	Salt Creek tributary near Roswell, N. Mex.	Lat 33°32'22", long 104°31'08", Chavez County, at culvert on U.S. Highway 285, 4.7 miles north of junction of U.S. Highway 70 and 285, and 10 miles north of Roswell.	.04	1952-	- -79	-	0
08389000	Rio Bonito near Fort Stanton, N. Mex.	Lat 33°31'05", long 105°29'10", Lincoln County, at bridge on U.S. Highway 380, 2.5 miles northeast of Fort Stanton.	a85	1955-	05-17-79	5.48	1,300
08389060	Rio Bonito tributary near Fort Stanton, N. Mex.	Lat 33°31'15", long 105°28'05", Lincoln County, at culvert on U.S. Highway 380, 150 ft above mouth, and 3.5 miles northeast of Fort Stanton.	.72	1955-	- -79	-	0
08390050	Rio Hondo tributary at Tinnie, N. Mex.	Lat 33°22'36", long 105°13'01", Lincoln County, upstream from culvert on U.S. Highway 70-380, 0.5 mile east of junction of U.S. Highway 70-380 and State Highway 368, and at Tinnie.	.23	1971-	08-15-79	0.58	8
08390150	Gallo Canyon near Picacho, N. Mex.	Lat 33°17'23", long 105°10'49", Lincoln County, 500 ft east of road, 5 miles south of Arabela.	1.32	1962-	08-16-79	4.92	215
08393600	North Spring River at Roswell, N. Mex.	Lat 33°23'47", long 105°32'53", Chavez County, Roswell Municipal Golf Course, 2,400 ft upstream from Montana Ave. in Roswell.	19.5	1958-	- -79	-	0
08393700	Pancho Canyon near Arabela, N. Mex.	Lat 33°30'36", long 105°11'38", Lincoln County, 200 ft downstream from dip on State Highway 368, 5.6 miles south of Arabela.	16.7	1962-	- -79	-	0
08393900	Eight Mile Draw near Roswell, N. Mex.	Lat 33°24'05", long 104°37'54", Chavez County, 6.5 miles west of Roswell.	397	1941 1952-	- -79	-	0

Annual maximum discharge at crest-stage partial-record stations - Continued

					Annual maximum		
Station no.	Station name	Location	Drainage are (mi^2)	Period of record	Date	Gage height (feet)	Discharge (ft^3/s)
		Rio Grande basin - Continued					
08394300	Twin Butte Canyon tributary near Roswell, N. Mex.	Lat 33°10'34", long 104°51'30", Chavez County, about 0.1 mile upstream from mouth and about 22 miles southwest of Roswell.	5.01	1968-	- -79	(e)	-
08397390	Curtis Canyon near Mayhill, N. Mex.	Lat 32°51'52", long 105°31'05", Otero County, 0.26 mile above SCS dam, 0.4 mile west of State Highway 130, and 2.5 miles southwest of Mayhill.	10.3	1959-	- -79	-	0
08397400	Hyatt Canyon near Cloudcroft, N. Mex.	Lat 32°56'06", long 105°37'37", Otero County, 0.5 mile south of State Highway 83, and 7 miles east of Cloudcroft.	3.08	1953-	08-15-79	0.32	(+)
08397600	Rio Penasco near Dunken, N. Mex.	Lat 33°52'55", long 105°10'40", Chavez County, on bridge on State Highway 24, 5 miles north of Dunken.	583	1952-56 1956-62‡ 1963-	08-15-79	6.69	270
08405050	Last Chance Canyon tributary near Carlsbad Caverns, N. Mex.	Lat 32°17'30", long 104°36'20", Eddy County, above culvert on State Highway 137, 0.1 mile north of road to Sitting Bull Falls, and 12.5 miles northwest of Carlsbad Caverns.	.2	1959-	08-15-79	1.48	24
08405100	Mosley Canyon White City, N. Mex.	Lat 32°15'27", long 104°22'43", Eddy County, 600 ft below dip on Dark Canyon Road, and 5.5 miles north of White City.	14.6	1959-	08-15-79	3.97	(+)
08436000	Antelope Draw near Jal, N. Mex.	Lat 32°09'18", long 103°21'51", Lea County, 0.4 mile south of State Highway 128, and 10.7 miles west of Jal.	a20	1963-	- -79	-	0
08437620	Monument Draw tributary near Monument, N. Mex.	Lat 32°39'44", long 103°27'16", Lea County, upstream from culvert on U.S. Highway 62-180, about 12 miles northwest of Monument and 19.5 miles west of Hobbs.	6.23	1968-	- -79	0.17	(+)

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi²)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft³/s)
		Mimbres River basin					
08477100	Willow Springs Canyon at Mimbres, N. Mex.	Lat 32°51'20", long 107°58'35", Grant County, about 600 ft downstream from State Road 61, 0.2 mile north of post office in Mimbres.	3.84	1970-	- -79	-	0
08477560	Little Walnut Creek near Silver City, N. Mex.	Lat 32°48'20", long 108°17'35", Grant County, 85 ft above dip on Bear Mountain Road, and 2 miles north of Silver City.	5.10	1959-	- -79	-	0
08477580	Silva Creek at Silver City, N. Mex.	Lat 32°46'41", long 108°16'41", Grant County, 190 ft above Twelfth Street bridge at Silver City.	10.0	1958-	11-24-78	1.96	125
08477590	Pinos Altos Creek at Silver City, N. Mex.	Lat 32°46'52", long 108°16'04", Grant County, 2 blocks below U.S. Highway 260 at Silver City.	4.63	1958-	- 79	-	0
08478000	Cameron Creek at Central, N. Mex.	Lat 32°47'38", long 108°08'58", Grant County, 0.5 mile above culvert on U.S. Highway 260, at north edge of Central.	18.8	1954-	11-24-78	1.41	<150
08478500	Mimbres River at Deming, N. Mex.	Lat 32°17'00", long 107°45'35", Luna County, at bridge on U.S. Highway 260, at north end of Deming.	1,370	1954-	12-19-78	5.91	2,350
08478600	Mimbres basin tributary near Florida, N. Mex.	Lat 32°21'25", long 107°37'35", Luna County, above culvert on State Highway 26, and 5 miles southwest of Florida.	.55	1959-	09-15-79	2.03	119
08478800	Seventysix Draw tributary near Waterloo, N. Mex.	Lat 31°56'34", long 107°44'38", Luna County, upstream from culvert on State Road 11, 3.9 miles southeast of Waterloo, and 7.9 miles north of Columbus.	.2	1967-	11-01-79	3.28	59
		Playas Valley					
08479300	Deer Creek tributary near Antelope Wells, N. Mex.	Lat 31°23'00", long 108°42'15", Hidalgo County, 0.1 mile below dip on State Highway 79, 2.5 miles east of San Luis Pass, and 12 miles west of Antelope Wells.	4.3	1959-	08-15-79	1.15	137

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Tularosa Valley					
08480100	White Oaks Canyon at White Oaks, N. Mex.	Lat 33°46', long 105°44', Lincoln County, 40 ft upstream from culvert on State Highway 349, 1 mile northeast of White Oaks.	1.14	1961-	08-15-79	1.57	(+)
08480150	White Oaks Canyon near Carrizozo, N. Mex.	Lat 33°43'51", long 105°50'11", Lincoln County, 100 ft upstream from culvert on U.S. Highway 54, 6 miles north of Carrizozo.	31	1959 1961-	08-15-79	1.75	700
08480170	Nogal Creek tributary near Nogal, N. Mex.	Lat 33°34'54", long 105°41'10", Lincoln County, upstream from culvert on U.S. Highway 380, about 2.0 road miles west of Indian Divide, 7 miles northwest of Capitan and 2 miles north of Nogal.	1.94	1968-	08-15-79	0.50	(+)
08480200	Taylor Canyon tributary near Bingham, N. Mex.	Lat 33°48'11", long 106°12'00", Socorro County, 200 ft north of U.S. Highway 380, 12 miles southeast of Bingham.	2.66	1961-	06-01-79	1.48	(+)
08480590	Tularosa Valley tributary near Oscura, N. Mex.	Lat 33°24'41", long 106°04'09", Lincoln County, 50 ft below culvert on U.S. Highway 54, and 5.2 miles south of Oscura.	3.22	1958-	- -79	-	(0)
08480650	Minnie Hall Draw near Three Rivers, N. Mex.	Lat 33°23'40", long 105°58'11", Lincoln County, 8 miles northeast of Three Rivers.	9.70	1956-	08-15-79	11.27	740
08480700	Indian Creek near Three Rivers, N. Mex.	Lat 33°22'10", long 105°53'25", Otero County, 150 ft above diversion dam, and 12 miles east of Three Rivers.	6.8	1956-58* 1959-	08-15-79	3.70	150
08480900	Indian Creek at mouth near Three Rivers, N. Mex.	Lat 33°22'45", long 105°57'25", Otero County, 75 ft above diversion dam, 0.35 mile above mouth, and 5.5 miles east of three Rivers.	10.9	1956-58* 1959-	- -79	-	0
08486200	Black Prince Canyon tributary near Organ, N. Mex.	Lat 32°26'11", long 106°32'03", Doña Ana County, above culvert on U.S. Highway 70, 2.3 miles east of San Augustin Pass, and 4.0 miles east of Organ.	.73	1959-	- -79	-	0
08486400	Tularosa Valley tributary near Orogrande, N. Mex.	Lat 32°24'55", long 106°04'20", Otero County, at bridge on U.S. Highway 54, and 2.7 miles northeast of Orogrande.	2.53	1959-	07-28-79	1.33	(+)

Annual maximum discharge at crest-stage partial-record stations - Continued

					Annual maximum		
Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Date	Gage height (feet)	Discharge (ft^3/s)
		Estancia Valley					
08488000	Estancia Valley tributary at Cedar Grove, N. Mex.	Lat 35°10'05", long 106°10'08", Santa Fe County, 50 ft upstream from culvert on State Highway 344, 0.1 mile south of Cedar Grove.	1.21	1955 1961-	- -79	(e)	-
08488100	Juan Tomas Canyon near Edgewood, N. Mex.	Lat 35°04'35", long 106°13'46", County, 140 ft upstream from culvert on U.S. Highway 66, 2.5 miles northwest of Edgewood.	a20	1962-	- -79	(b)	(+)
08488170	Chavez Draw tributary near Clines Corners, N. Mex.	Lat 35°01'06", long 105°49'06", Torrance County, one mile north of Interstate 40, 13 miles east of Moriarty and 9 miles west of Clines Corners.	2.73	1968-	07-07-79	5.84	21
08488200	Osita Draw near Clines Corners N. Mex.	Lat 35°00'18", long 105°48'00", Torrance County, 100 ft upstream from culvert on U.S. Highway 66, 7.5 miles west of Clines Corners.	a10	1961-	- -79	(b)	< 100
08488500	Cañon de Torreon at Torreon, N. Mex.	Lat 34°43'20", long 106°17'50", Torrance County, at culvert on State Highway 10, in Torreon.	18.2	1954-	12-06-78	1.34	< 10
08488600	Arroyo del Cuervo near Torreon, N. Mex.	Lat 34°41'35", long 106°18'27", Torrance County, in Town of Torreon Grant, about 0.3 mile above culvert on State Road 10 and 2 miles south of Torreon.	11.8	1969-	06-02-79	1.89	62
08489000	Big Draw near Mountainair, N. Mex.	Lat 34°18'45", long 106°11'35", 0.25 mile above culvert on State Highway 10, and 8.4 miles southeast of Mountainair.	3.9	1953-	- -79	-	0
		Crow Flats					
08492500	Fleming Draw near Pinon, N. Mex.	Lat 32°31'01", long 105°20'42", Otero County, 0.2 mile above dip in ranch road, and 7.5 miles south of Pinon.	16.6	1959-	- -79	-	(0)
		San Augustin Plains basin					
08500000	Swingle Canyon near Datil, N. Mex.	Lat 34°11'17", long 107°53'55", Catron County, about 0.3 mile upstream from U.S. Highway 60, and 4.3 miles northwest of Datil.	6.35	1970-	10-21-78	1.66	(+)

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		San Juan River basin					
09346200	Rio Amargo at Dulce, N. Mex.	Lat 36°56'00", long 107°00'00", Rio Arriba County, under bridge on State Highway 17, at Dulce.	168	1956-	12-17-78	5.73	920
09350700	Ruben Canyon near Gobernador, N. Mex.	Lat 36°44'26", long 107°14'33", Rio Arriba County, in Carson National Forest, upstream from culvert on State Highway 17, and 6.5 miles east of Gobernador.	5.06	1970-	- -79	-	0
09350800	Vaqueros Canyon near Gobernador, N. Mex.	Lat 36°43'23", long 107°16'47", Rio Arriba County, 100 ft east of State Highway 17, and 4.2 miles east of Gobernador.	60.5	1956-	12-18-78	4.56	380
09355700	Gobernador Canyon near Gobernador, N. Mex.	Lat 36°41'05", long 107°25'10", San Juan County, 0.2 mile south of State Highway 17, and 4 miles southwest of Gobernador.	19.8	1956-	- -79	(b)	<300
09356400	Manzanares Canyon near Turley, N. Mex.	Lat 36°44'15", long 107°42'15", San Juan County, 600 ft above culvert on State Highway 17, and 4.2 miles east of Turley.	3.20	1956-	- -79	-	0
09356520	Burro Canyon near Lindrith, N. Mex.	Lat 36°16'21", long 107°14'46", Rio Arriba County, upstream from culvert on State Highway 537, 11.5 miles west of Lindrith.	9.11	1970-	05-09-79	4.02	50
09357200	Gallegos Canyon tributary near Nageezi, N. Mex.	Lat 36°24'59", long 107°51'45", San Juan County, at culvert on State Highway 44, 1.1 miles northwest of Huerfano Trading Post, and 12.5 miles northwest of Nageezi.	.20	1952-	11-03-78	2.57	158
09357230	West Draw near Farmington, N. Mex.	Lat 36°35'24", long 108°11'03", San Juan County, 15 ft upstream of culvert on State Highway 371, 11 miles south of Farmington.	.32	1975-	10-21-79	2.43	(+)
09367400	La Plata River tributary near Farmington, N. Mex.	Lat 36°47'10", long 108°13'31", San Juan County, about 700 ft upstream from culvert on State Highway 17 and 4.1 miles northwest of Farmington.	1.03	1970-	07-21-79	1.98	12
09367530	Locke Arroyo near Kirtland, N. Mex.	Lat 36°43'51", long 108°17'46", San Juan County, on upstream side of abandoned culvert, 200 ft above U.S. Highway 550, 0.4 mile above mouth, and 3.3 miles east of Kirtland.	2.96	1951-	- -79	-	0
09367550	Stevens Arroyo near Kirtland, N. Mex.	Lat 36°46'00", long 108°22'10", San Juan County, upstream from gravel road to Young's Lake, 0.6 mile north of El Paso Natural Gas, San Juan Plant, and 2.3 miles north of Kirtland.	4.59	1970-	10-21-78	10.34	(+)

Annual maximum discharge at crest-stage partial-record stations - Continued

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		San Juan River basin - Concluded					
09367840	Yazzie Wash near Mexican Springs, N. Mex.	Lat 35°50'40", long 108°53'00", McKinley County, 5.0 miles northwest of Mexican Springs, and 23 miles north of Gallup.	a2.1	1953-54 1956-	08-08-79	2.27	71
09367900	Black Springs Wash near Mexican Springs, N. Mex.	Lat 35°45'40", long 108°49'00", McKinley County, 2.5 miles south of Mexican Springs and 17 miles north of Gallup.	7.05	1954-	08-15-79	0.85	508
09357920	Coyote Wash tributary near Naschitti, N. Mex.	Lat 36°05'55", long 108°41'48", San Juan County, on bridge on U.S. Highway 666, 2.4 miles north of Naschitti, and 39 miles north of Gallup.	12.0	1967-	- -79	(e)	-
09367932	Hunter Wash tributary near Bisti Trading Post, N. Mex.	Lat 36°15'33", long 108°15'06", San Juan County, on left bank upstream of culverts, 1.2 mile south of Bisti Trading Post.	8.47	1975-	01-02-79	5.86	(+)
09367940	Peña Blanca near Newcomb, N. Mex.	Lat 36°21'39", long 108°43'09", San Juan County, on bridge on U.S. Highway 666, 5.2 miles north of Newcomb.	h46.8	1967-	01-02-79	6.50	(+)
		Little Colorado River basin					
09386100	Largo Creek near Quemado, N. Mex.	Lat 34°19'25", long 108°31'40", Catron County, on downstream side of bridge on ranch road 2.5 miles southwest of Quemado.	151	1954-	10-20-78	1.92	280
09386150	Mangas Creek tributary near Pietown, N. Mex.	Lat 34°18'11", long 108°08'30", Catron County, above culvert on U.S. Highway 60, 1.3 miles west of Junction with state road 36 in Pietown.	a.08	1952-	- -79	-	0
09386200	Carrizo Creek near Salt Lake, N. Mex.	Lat 34°31', long 109°01', Catron County, on left downstream wingwall of bridge, 1.3 miles east of New Mexico-Arizona State line and 15 miles west of Salt Lake.	f560	1957-	- -79	-	0
09387050	Galestena Canyon tributary near Black Rock, N. Mex.	Lat 34°58'45", long 108°40'00", McKinley County, 100 ft below bridge on State Highway 32 and 10.5 miles southeast of Black Rock.	a19	1957-	- -79	1.08	21
09395400	Milk Ranch Canyon near Fort Wingate, N. Mex.	Lat 35°26'30", long 108°33'30", McKinley County, 0.5 mile below culvert on secondary road between Fort Wingate and McGaffey, and 3 miles south of Fort Wingate.	14.0	1949 1953-	10-22-78	1.02	27

Annual maximum discharge at crest-stage partial-record stations - Concluded

Station no.	Station name	Location	Drainage area (mi^2)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (ft^3/s)
		Gila River Basin					
09430300	Copperas Canyon near Pinos Altos, N. Mex.	Lat 33°04'42", long 108°12'14", Grant County, on east side of Copperas Canyon road and 15 miles north of Pinos Altos.	3.95	1963-	11-24-78	1.61	(+)
09430900	Duck Creek at Cliff, N. Mex.	Lat 32°58'03", long 108°36'36", Grant County, at Cliff below bridge on State Highway 211, and 0.6 mile above mouth.	228	1957-	10-21-78	9.36	5,800
09437200	Mexican Canyon at Virden, N. Mex.	Lat 32°41'03", long 108°59'00", Hidalgo County, upstream from dip in State Road 82, and about 0.8 mile east of Virden.	3.40	1968-	- -79	-	6
09438200	Animas Creek near Cloverdale, N. Mex.	Lat 31°34'15", long 108°52'30", Hidalgo County, near head of small box canyon 0.1 mile west of State Highway 338, and 11 miles north of Cloverdale.	157	1959-	08-15-79	7.02	2,500
09442630	Mail Hollow near Luna, N. Mex.	Lat 33°47'38", long 108°56'59", Catron County, upstream from culvert on U.S. Highway 180, 2.3 miles south of Luna.	4.20	1970-	- -79	-	0
09442660	Trout Creek at Luna, N. Mex.	Lat 33°50'50", long 108°59'38", Catron County, 500 ft downstream from bridge on Luna-Red Hill road and 2.6 miles north of Luna.	31.9	1954-	11-12-78	3.07	400
09442695	Negro Canyon at Aragon, N. Mex.	Lat 33°52'47", long 108°33'08", Catron County, above culvert on State Highway 12, at west edge of Aragon.	9.62	1958-	- -79	-	-
09442740	Tularosa River near Reserve, N. Mex.	Lat 33°44'00", long 108°42'10", Catron County, 150 ft west of Eagle Peak Lookout road and 3.3 miles northeast of Reserve.	426	1956-	11-24-78	6.22	850
09443950	Red Colt Canyon at Pleasanton, N. Mex.	Lat 33°15'30", long, 108°52'15", Catron County, above culvert on U.S. Highway 260, and 1 mile south of Pleasanton.	3.00	1959-	11-24-78	1.67	(+)
09455800	Steins Creek at Steins, N. Mex.	Lat 32°13'47", long 109°00'01", Hidalgo County, at culvert on State Highway 14, 0.9 mile west of Steins.	1.26	1959-	12-08-78	1.92	<150

Less than
+ Discharge not yet determined.
‡ Operated as continuous-record gaging station.
a Approximately.
b Peak did not reach bottom of gage.
c Estimated.
d From floodmark.
e Gage height not determined
f Contributing area
g Discontinued at end of year.
h Revised.
j May not have been peak for year.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurements of peak flow by a dagger (†).

Discharge measurements made at miscellaneous sites during water year 1979

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Arkansas River basin				
Chicorica Creek a07202000	Canadian River	Lat 36°46'13", long 104°23'45", in S½ sec.4, T.29 N., R.24 E., Colfax County, at highway bridge near east boundary of Maxwell Grant, 300 ft downstream from Una de Gato Creek, 4.4 miles northeast of Hebron, and 9.0 miles south of Raton, NM.	381	1945-52† 1966-78	10-17-78	0.34
					11-13-78	.12
					12-13-78	1.1
					1- 9-79	1.3
					2- 6-79	1.1
					3- 6-79	1.8
					4- 4-79	1.7
					5- 1-79	.17
					5-30-79	.71
					6-28-79	.08
					7-27-79	2.4
					8-22-79	.91
					9-18-79	2.8
Canadian River 07224500	Arkansas River	Lat 35°24'12", long 104°11'18", San Miguel County, in Pablo Montoya Grant, 300 ft below Conchas Dam, and 24 miles north of Newkirk, NM.	7,417	1936-38‡ 1942-72‡ 1973-78	11- 6-78	2.6
					11-28-78	4.5
					1-10-79	4.6
					2-16-79	1.9
					3-21-79	3.7
					4-12-79	3.2
					5- 1-79	3.8
					5- 3-79	4.3
					7-24-79	4.8
Canadian River a07227140	Arkansas River	Lat 35°23'35", long 103°02'30", in SW¼ sec.32, T.14 N., R.37 E., Quay County at New Mexico-Texas State line 14.7 miles north of Glenrio, NM.	-	1969-78	11- 1-78	5.2
					11-29-78	11
					12-20-78	9.1
					1-30-79	8.3
					2-28-79	8.2
					4-11-79	9.4
					5- 9-79	2.5
					6-13-79	21
					7-11-79	13
					9-20-79	23
		Rio Grande basin				
Red River 08264500	Rio Grande	Lat 36°40'25", long 105°22'45", Taos County, on right bank, 2,000 ft upstream from Goose Creek, 2.6 mi southeast of Red River, and at mile 24.1.	25.7	1963-73‡	10-17-78	5.7
					11-14-78	6.8
Red River	Rio Grande	Lat 36°41'50", long 105°29'00", in Taos County, 0.5 mi above Molycorp Refining, 7 mi east of Questa and at mile 15.2	-	1965	9-20-78	9.0
					10-17-78	7.9
					11-14-78	8.8
					1- 6-79	9.6
					9-27-79	21
Red River	Rio Grande	Lat 36°41'40", long 105°36'31", in SW¼NE¼ sec.1, T.28 N., R.12 E., in Taos County, at highway bridge 1.4 mile downstream from Cabresto Creek and 1.2 mi southwest of Questa.	-	-	10-17-78	8.2
					11-14-78	8.8
					1-16-79	9.0
					9-27-79	19

Measurements at miscellaneous sites

Discharge measurements made at miscellaneous sites during water year 1979

Stream	Tributary to	Location	Drainage area (mi^2)	Measured previously (water years)	Measurements Date	Measurements Discharge (ft^3/s)
		Rio Grande basin--continued				
Rio Hondo	Rio Grande	Lat 36°35'47", long 105°27'37", in Taos County, 300 ft upstream discharge point of Twining wastewater treatment plant, 0.6 mi downstream from Twining and 1.0 mi upstream from Gavilan Canyon.	10.2	-	2-26-78	5.1
Alamosa Creek 08360000	Rio Grande	Lat 33°34'09", long 107°35'33", in SE¼ sec.31, T.8 S., R.7 W., Socorro County, just downstream from Wildhorse Creek, and 15 miles northwest of Monticello, NM.	403	1931-42‡ 1958-71‡ 1972-78	11-13-78	*6.3
					2-26-79	*6.4
					5-11-79	*6.4
					8-10-79	*7.4
Blue Springs 08405450	Black River	Lat 32°11'07", long 104°16'50", in SW¼NE¼SW¼ sec.27, T.24 S., R.26 E., Eddy County, above all diversions, 5.5 miles east of White City, NM.	-	1907 1919-20, 1923 1935, 1952-70 1974-78	10-16-78	*10
					11-19-78	*13
					1-28-79	*12
					2-22-79	*14
					5-14-79	*14
					7-24-79	*13
Castle Springs	Black River	Lat 32°11'59", long 104°15'13", in SW¼SW¼SW¼ sec.24, T.24 S., R.26 E., above mouth at Black River Village, Eddy County, 7.2 miles east of White City, NM.	-	1975-78	10-16-78	*0.46
					11-19-78	*2.7
					1-28-79	*1.6
					2-22-79	*1.4
					5-14-79	* .80
					7-1[illegible]-79	* .32
		Gila River basin				
Mangas Creek a09431100	Gila River	Lat 32°50'48", long 108°30'57", in NW¼NE¼ sec.8, T.17 S., R.16 W., Grant County, 0.4 mile northwest of Mangas Springs, NM.	177	1972-78	11-10-78	*3.6
					2- 8-79	*4.2
					5-16-79	*3.2
					7-11-79	*3.0
					9-11-79	*3.9

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* Base flow.
‡ Operated as a continuous record station.
a Also a water-quality continuing record station.

RIO GRANDE BASIN

Santa Fe River seepage investigation

REACH.--On Santa Fe River from "below Twomile Reservoir" in Santa Fe to the gaging station "above Cochiti Lake" (station 08317200) a distance of 25.5 river miles.

PREVIOUS INVESTIGATIONS.--May 4, 1973 (published as "miscellaneous measurement"), June 18, 1973, and July 3, 1973.

DATE.--June 28, 1979, and July 5, 1979.

WEATHER.--Weather was favorable for both investigations with no precipitation for several days prior to each run.

STREAMFLOW.--Both investigations were made during the recession from spring runoff which began through this reach on April 27 after filling the upstream reservoirs. Temporary recording gages were established "at Don Gaspar Street bridge" (river mile 30.6) and "below road ford near Santa Fe Municipal Airport" (river mile 20.3) to supplement the regular recording gage "above Cochiti Lake" (river mile 7.9). No attempt was made to determine the net effect of Acequia Madre, which diverts downstream from river mile 33.4, since several areas of return flow were noted between the point of diversion and river mile 31.1.

During the June investigation discharge as recorded at the Don Gaspar gage was near constant for 18 hours prior to the run, ranging from 18.7 to 19.3 ft^3/s. This near constant discharge probably continued downstream to river mile 23.5 where the Siler Road sewage plant effluent enters the river. Discharge from both sewage plants varies throughout the day and is dependent upon inflow to the plants. The gage "near Santa Fe Municipal Airport" was the overlap point of the two hydrographers making this investigation. The hydrographer who started at this site in the morning measured 16.0 ft^3/s which was near minimum for the day, 15.2 ft^3/s, which had occurred about one half hour earlier. Discharge increased during the morning to 21.2 ft^3/s at 1100 hours and continued at this rate until after the hydrographer working downstream to this site completed his measurement in mid-afternoon. The effects of discharge from the sewer plant was naturally dampened as measurements progressed downstream. The measurement at the "above Cochiti Lake" gage was also made at a low point in the discharge hydrograph, an indication that most measurements between these gages were made near this low point on the hydrograph.

During the July investigation the Don Gaspar gage showed a decrease in discharge from 10.6 ft^3/s at 2400 hours July 4 to 10.0 ft^3/s at the time of the measurement (0825 hours July 5). Conditions throughout the reach of the investigation were much the same as those during the June run with inflow from the sewage plants being near minimum at the time of the morning measurement at the "Airport" gage. The measurement at 0820 hours was 10.1 ft^3/s compared with the minimum for the day of 9.7 ft^3/s at 0730 hours. Discharge again increased during the morning reaching 12.3 ft^3/s at 1315 hours, the last measurement of the hydrographer working downstream to this site. The measurement "above Cochiti Lake" (10.7 ft^3/s) was again at a low point in the discharge hydrograph.

REMARKS.--The results of both investigations are rated as good (±10%) upstream from the sewage plant inflow (river mile 23.5) and fair (±15%) for the remainder of the reach. All known sources of diversion or inflow were measured and included in this tabulation except those associated with Acequia Madre between river mile 33.4 and river mile 31.1.

SEEPAGE INVESTIGATIONS

RIO GRANDE BASIN

Santa Fe River seepage investigations

River mile	Stream	Location	June 28, 1979					July 5, 1979				
			Time	Water temp °C	Discharge, in ft^3/s			Time	Water temp °C	Discharge, in ft^3/s		
					Main stream	Trib or diver.	Indic. gain or loss			Main stream	Trib or diver.	Indic. gain or loss
33.4	Santa Fe River	Lat 35°41'11", long 105°53'40", 100 ft upstream from Cerro Gordo road, below Twomile Reservoir	0750	16.0	24.8	-	-	0650	14.5	13.0	-	-
31.1	do.	Lat 35°41'04", long 105°55'50", at Delgado St. bridge, Santa Fe	0840	15.5	19.2	-	-5.6	0740	14.0	9.59	-	-3.4
30.6	do.	Lat 35°41'07", long 105°56'27", at Don Gaspar St. bridge, Santa Fe	0930	15.5	19.3	-	+.1	0825	14.0	10.0	-	+.4
29.7	do.	Lat 35°41'18", long 105°57'14", at St. Francis Drive bridge, Santa Fe	1015	17.0	20.3	-	+1.0	0900	14.0	10.4	-	+.4
29.0	do.	Lat 35°41'05", long 105°57'59", at Camino Alire bridge, Santa Fe	1055	18.0	19.4	-	-.9	0940	16.0	10.2	-	-.2
27.4	do.	Lat 35°40'18", long 105°59'12", at Camino Carlos Rael, Santa Fe	1130	20.0	18.6	-	-.8	1025	19.0	10.2	-	0
25.8	do.	Lat 35°39'36", long 106°00'43", at crossing nr San Isidro Cemetery, at Agua Fria	1235	23.5	17.1	-	-1.5	1115	21.5	7.86	-	-2.3
24.2	do.	Lat 35°39'02", long 106°02'10", above old race track crossing, downstream from Agua Fria	1315	24.5	16.1	-	-1.0	1140	23.0	6.80	-	-1.06
23.5	Sewage inflow (Siler Rd plant)	Lat 35°38'41", long 106°02'37", at mouth adjacent to State Hwy 22 at Agua Fria	1350	-	-	+2.78	-	1205	-	-	+2.66	-
20.5	Sewage inflow (Airport Rd plant)	Lat 35°37'49", long 106°05'22", at mouth nr Santa Fe Municipal Airport nr Santa Fe	1415	-	-	+5.20	-	1245	-	-	+4.92	-
20.3	Santa Fe River	Lat 35°37'43", long 106°05'33", below road ford nr Santa Fe Municipal Airport nr Santa Fe	1455 0805	27.0 16.0	21.2 16.0	- -	-2.9 -	1315 0820	25.0 15.0	12.3 10.1	- -	-2.1 -
17.6	do.	Lat 35°36'06", long 106°07'19", at road ford 0.4 mi north of Cieneguilla Church nr Cañon	0850	17.0	13.4	-	-2.6	0910	15.0	8.44	-	-1.7
15.5	do.	Lat 35°34'49", long 106°08'14", at community of Cañon	1010	20.0	19.0	-	+5.6	1010	16.0	9.90	-	+1.46
13.2	do.	Lat 35°33'27", long 106°08'59", above mouth of Cienega Creek at La Cienega	1230	26.0	19.7	-	+.7	1140	21.0	9.48	-	-.42
13.2	Cienega Creek	Lat 35°33'26", long 106°09'00", above mouth of Alamo Creek at La Cienega	1155	28.0	-	+.76	-	1110	22.0	-	+.60	-
13.2	Alamo Creek	Lat 35°33'25", long 106°09'00", at mouth at La Cienega	1200	22.0	-	+.04	-	1200	21.0	-	+.04	-
-	ditch	Lat 35°32'49", long 106°13'41", on right bank adjacent to Sta 08317200	1500	29.0	-	-.46	-	1335	27.0	-	-.02	-
7.9	Santa Fe River	Lat 35°32'49", long 106°13'41", at regular gage (Sta 08317200) at mouth of canyon above Cochiti Lake nr Pena Blanca	1430	29.0	19.6	-	-.4	1310	26.0	10.7	-	+.6

Water-quality partial-record stations are particular sites where chemical-quality, biological and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. The data are collected less than quarterly; usually one to three times a year. Under the heading SAMPLE SOURCE, numerical values are used to indicate method of sampling; 40 indicates single stage sample.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

RIO GRANDE BASIN

08332700 SAN PABLO CREEK NEAR CUBA, NM (LAT 35 56 55 LONG 106 56 44 01)

DATE	TIME	STREAM-FLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
APR										
19...	1530	E37	750	7.2	--	--	--	--	--	--
19...	1800	16	400	7.6	9.0	7000	160	43	47	11
19...	2130	E160	1720	6.9	--	--	--	--	--	--
25...	0840	16	280	7.6	5.0	--	--	--	--	--
MAY										
08...	0830	7.8	380	7.8	6.5	--	--	--	--	--
29...	0930	3.4	490	8.2	14.0	--	--	--	--	--
JUL										
13...	1400	E18	2410	7.6	--	--	--	--	--	--

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)
APR										
19...	--	--	--	--	--	--	--	--	--	--
19...	13	.4	3.0	--	120	71	3.2	.8	8.7	253
19...	--	--	--	--	--	--	--	--	--	--
25...	--	--	--	128	105	--	--	--	--	--
MAY										
08...	--	--	--	120	98	--	--	--	--	--
29...	--	--	--	220	180	--	--	--	--	--
JUL										
13...	--	--	--	--	--	--	--	--	--	--

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
APR										
19...	--	--	--	--	--	--	--	--	--	40
19...	230	.35	.03	15	15	3.60	60	30	0	--
19...	--	--	--	--	--	--	--	--	--	40
25...	--	--	--	--	--	--	90	40	0	--
MAY										
08...	--	--	--	--	--	--	70	70	10	--
29...	--	--	--	--	--	--	60	10	10	--
JUL										
13...	--	--	--	--	--	--	--	--	--	40

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)
APR							
19...	1530	33	--	4800	--	620	--
19...	1800	66	1	3200	100	280	60
19...	2130	820	--	--	--	510	--
25...	0840	2	1	300	100	170	90
MAY							
08...	0830	1	1	200	100	90	70
29...	0930	1	1	200	100	60	60
JUL							
13...	1400	67	--	1300	--	450	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

RIO GRANDE BASIN - Continued

08332700 SAN PABLO CREEK NEAR CUBA, NM (LAT 35 56 55 LONG 106 56 44 01) - Continued

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	SAMPLE SOURCE (72005)
APR							
19...	330000	--	1400	--	17000	--	40
19...	190000	30	500	0	10000	0	--
19...	21000	--	1000	--	44000	--	40
25...	12000	40	0	0	440	0	--
MAY							
08...	4100	70	0	0	180	10	--
29...	1900	10	0	0	100	10	--
JUL							
13...	220000	--	1100	--	16000	--	40

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
APR						
19...	1530	E37	--	89700	75	40
19...	1800	16	9.0	31500	74	--
19...	1801	E16	9.0	30400	75	--
19...	2130	E160	--	438000	56	40
25...	0840	16	5.0	1320	48	--
MAY						
08...	0830	7.8	6.5	551	54	--
29...	0930	3.4	14.0	152	68	--
JUL						
13...	1400	E18	--	81800	96	40

08405450 BLUE SPRINGS ABOVE DIVERSIONS, (LAT 32 11 07 LONG 104 16 50 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)
OCT						
16...	1100	--	1710	7.6	18.0	18
MAY						
14...	1335	14	1540	7.8	23.0	--
JUL						
24...	0835	13	1580	7.5	20.0	--

SAN JUAN RIVER BASIN

WESTWATER ARROYO AT SAN JUAN POWERPLANT, NM (LAT 36 47 37 LONG 108 25 47 10) (LOCAL INDENTIFIER-30N.15W.21.333)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
DEC												
21...	1430	E3.0	4500	6.2	5.0	4.0	.0	500	500	150	30	920
MAR												
15...	1400	E4.0	10000	3.4	17.0	18.0	.0	1100	1100	350	50	2600
MAY												
24...	1100	E2.0	11000	6.7	23.5	24.5	.1	490	490	92	63	2900
SEP												
27...	1500	E3.0	7200	3.5	29.0	26.0	.1	1200	1200	430	42	1300

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

WESTWATER ARROYO AT SAN JUAN POWERPLANT, NM (LAT 36 47 37 LONG 108 25 47 10)
(LOCAL IDENTIFIER-30N.15W.21.333) - Continued

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
DEC 21...	18	11	0	2400	75	5.8	12	3610	1.1	.16	1300	1500
MAR 15...	34	24	0	6400	340	31	46	9860	.97	.73	8500	6300
MAY 24...	57	22	0	5800	490	24	28	9430	.19	.05	7700	350
SEP 27...	16	15	1	3400	330	64	58	5670	1.9	.61	10000	9800

POWERPLANT ARROYO BELOW SAN JUAN POWERPLANT RESERVOIR, NM (LAT 36 47 06 LONG 108 26 26 10)
(LOCAL IDENTIFIER-30 N.15W.29.322)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
DEC 21...	1400	E2.0	6590	8.1	.0	4.0	11.3	2400	2100	270	410	930
MAR 15...	1300	E2.0	6400	8.3	16.0	12.5	12.7	--	--	--	420	900
MAY 24...	1030	E1.0	6400	7.9	19.0	18.0	9.1	2600	2400	340	420	450
SEP 27...	1400	E2.0	7400	8.3	27.0	18.5	9.4	2400	2200	360	370	840

DATE	SODIUM AD- SORP- TION RATIO (00931)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)
DEC 21...	8.3	14	220	3800	140	.3	8.1	5750	11	.01	370	20
MAR 15...	--	15	200	3800	150	.4	2.2	--	11	.01	370	30
MAY 24...	3.9	11	210	3200	160	.7	1.4	4740	6.7	.00	420	40
SEP 27...	7.4	11	220	3800	110	1.7	3.3	5660	6.3	.01	430	20

SHUMWAY ARROYO ABOVE DUNLAP FARM NEAR WATERFLOW,NM (LAT 36 46 31 LONG 108 26 10 10)
(LOCAL IDENTIFIER-30N.15W.32.223)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)
DEC 21...	1313	E5.0	5350	5.7	2.5	5.5	.0	730	730	180	67	1000
MAR 15...	1200	E1.5	8550	3.7	15.5	15.5	.0	1300	1300	340	120	2200
MAY 24...	0950	E5.0	12000	7.7	20.0	20.5	.0	900	900	130	140	2400
SEP 27...	1300	E5.0	7150	3.8	27.0	21.5	6.4	1300	1300	380	90	1300

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

SHUMWAY ARROYO ABOVE DUNLAP FARM NEAR WATERFLOW,NM (LAT 36 46 31 LONG 108 26 10 10)
(LOCAL IDENTIFIER-30N.15W.32.223) - Continued

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
DEC 21...	16	12	0	2900	110	6.9	13	4300	2.1	.06	1600	520
MAR 15...	26	19	0	6000	330	24	38	9110	5.9	.41	6600	4800
MAY 24...	35	20	0	5800	310	.5	25	8850	3.3	.06	6900	210
SEP 27...	16	15	1	3800	330	56	57	6060	2.8	.16	9600	7800

DATE	TIME	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR 15...	0830	9.0	613	62

09367700 ALAMO WASH NEAR TANNER LAKE , NM (LAT 36 14 07 LONG 108 10 52 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	BICAR-BONATE (MG/L AS HCO3) (00440)	ALKA-LINITY (MG/L AS CACO3) (00410)	SAMPLE SOURCE (72005)
NOV 03...	0745	E1000	480	7.7	174	143	40
JAN 16...	1400	E500	1000	7.5	--	--	40

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SAMPLE SOURCE (72005)
NOV 03...	0745	35	2400	150	200000	400	7400	--	40
JAN 16...	1400	80	17000	410	850000	2500	150000	32	40

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
NOV 03...	0745	E1000	--	25200	88	40
JAN 16...	1400	E500	--	626000	60	40
APR 20...	1300	E500	11.0	4250	20	--

CHACO RIVER BELOW DE-NA-ZIN WASH NEAR BISTI, NM (LAT 36 11 37 LONG 108 20 21 10)
(LOCAL IDENTIFIER - NR066.0500 x 0388)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SAMPLE SOURCE (72005)
MAR 15...	1730	E25	575	7.5	4.1	40

DATE	TIME	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01063)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)	SAMPLE SOURCE (72005)
MAR 15...	1730	2	0	0	40

DATE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RA-226, DISSOLVED, PLANCHET COUNT (PCI/L) (09510)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
MAR 15...	1730	8.4	181	6.1	137	56	135	<.4	5.2

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
MAR 15...	1730	E25	18300	95	40

KIMMENIOLI WASH NEAR PHILLIPS MINE NEAR CROWNPOINT, NM (LAT 35 58 41 LONG 108 08 18 10)
(LOCAL IDENTIFIER - 20N.12W.08.323)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	SAMPLE SOURCE (72005)
NOV 03...	1900	E20	840	7.6	6.5	40
03...	2000	E50	550	7.8	4.8	40
MAR 15...	1750	E10	2600	8.8	6.2	40

DATE	TIME	ARSENIC TOTAL IN BOTTOM MATERIAL (UG/G AS AS) (01003)	MOLYBDENUM, RECOV. FM BOTTOM MATERIAL (UG/G) (01063)	SELENIUM, TOTAL IN BOTTOM MATERIAL (UG/G) (01148)
MAR 15...	1750	4	0	0

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

KIMMENIOLI WASH NEAR PHILLIPS MINE NEAR CROWNPOINT, NM (LAT 35 58 41 LONG 108 08 18 10) (LOCAL IDENTIFIER - 20N.12W.08.323) - Continued

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RA-226, DIS-SOLVED, PLAN-CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV									
03...	1900	<8.0	104	8.5	76	8.0	74	<.4	1.9
03...	2000	<5.5	139	6.7	79	6.2	78	<.5	1.7
MAR									
15...	1750	<27	18	11	5.2	<9.9	5.1	<.3	1.5

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
NOV					
03...	1900	E20	10800	92	40
03...	2000	E50	16900	90	40
MAR					
15...	1750	E10	654	95	

KIMMENIOLI WASH NEAR LAKE VALLEY,NM (LAT 36 06 41 LONG 108 10 38 10) (LOCAL IDENTIFIER-22N.13W.25.322)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SAMPLE SOURCE (72005)
NOV						
04...	0200	E155	500	7.3	12	40
04...	0300	E600	380	7.3	9.8	40

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RA-226, DIS-SOLVED, PLAN-CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV									
04...	0200	6.5	120	13	139	12	136	<.4	2.3
04...	0300	<4.2	90	14	71	13	71	<.3	1.2

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
NOV					
04...	0200	E155	30800	99	40
04...	0300	E600	30900	69	40

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

COYOTE WASH NEAR NASCHITTI,NM (LAT 36 08 09 LONG 108 32 34 10)
(LOCAL IDENTIFIER-NR067.0225x0788)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SAMPLE SOURCE (72005)
NOV						
03...	1800	E20	370	8.2	4.9	40
03...	1900	E100	210	7.9	4.7	40
03...	2000	E200	400	8.2	5.5	40

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01063)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01148)
FEB				
14...	1800	5	0	0

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RA-226, DIS-SOLVED, PLAN-CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV									
03...	1800	8.6	167	7.3	98	6.7	95	<.7	3.1
03...	1900	<2.3	76	6.0	67	5.5	67	<.1	1.4
03...	2000	<6.2	90	7.6	85	7.0	83	<.5	2.2

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
NOV					
03...	1800	E20	28700	100	40
03...	1900	E100	14900	95	40
03...	2000	E200	23700	98	40

09367932 HUNTER WASH TRIBUTARY AT ROAD CROSSING 5 MILES SOUTH OF BISTI, NM (LAT 36 15 33 LONG 108 15 06 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	BICAR-BONATE (MG/L AS HCO3) (00440)	ALKA-LINITY (MG/L AS CACO3) (00410)
NOV							
16...	1420	E12	1610	7.6	9.0	308	253

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
NOV							
16...	1420	47	1600	170	200000	700	10000

09367932 HUNTER WASH TRIBUTARY AT ROAD CROSSING 5 MILES SOUTH OF BISTI, NM (LAT 36 15 33 LONG 108 15 06 00) - Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV					
16...	1420	E12	9.0	52600	94

SANOSTEE WASH NEAR SANOSTEE, NM (LAT 36 28 13 LONG 108 34 41 10) (LOCAL IDENTIFIER-NR049.0433x0206)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
MAR						
15...	1630	E1.0	1060	7.3	17.0	5.9

DATE	TIME	ARSENIC TOTAL IN BOT-TOM MA-TERIAL (UG/G AS AS) (01003)	MOLYB-DENUM, RECOV. FM BOT-TOM MA-TERIAL (UG/G) (01063)	SELE-NIUM, TOTAL IN BOT-TOM MA-TERIAL (UG/G) (01148)
MAR				
15...	1630	1	0	0

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RA-226, DIS-SOLVED, PLAN-CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
MAR									
15...	1630	<14	91	12	40	11	36	<.1	19

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR					
15...	1630	E1.0	17.0	21200	100

ANALYSES OF SAMPLES COLLECTED AT WATER-QUALITY PARTIAL-RECORD STATIONS

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

CHACO RIVER ABOVE FOUR CORNERS POWERPLANT NEAR FRUITLAND, NM (LAT 36 34 17 LONG 108 33 49 10)
(LOCAL IDENTIFIER-NR032.0352x1230)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	SAMPLE SOURCE (72005)
NOV							
03...	1800	E500	780	7.4	--	4.4	40
03...	1900	E2000	770	7.4	--	5.0	40
MAR							
15...	1300	E7.0	690	7.3	12.5	9.0	--

DATE	TIME	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	VANA-DIUM, DIS-SOLVED (UG/L AS V) (01085)
MAR					
15...	1300	3	0	3	3.0

DATE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RA-226, DIS-SOLVED, PLAN-CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
NOV									
03...	1800	<7.9	129	6.7	119	6.2	119	<.4	6.1
03...	1900	<8.3	327	7.8	183	7.2	172	<.4	5.6
MAR									
15...	1300	<12	152	13	85	12	82	.6	.6

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
NOV						
03...	1800	E500	--	51700	97	40
03...	1900	E2000	--	55500	91	40
MAR						
15...	1300	E7.0	12.5	24900	98	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

Samples are collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin. Such sites are referred to as miscellaneous sites. Under the heading SAMPLE SOURCE, numerical values are used to indicate method of sampling; 29 indicates dip or grab, and 40 indicates single stage sample.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

RIO GRANDE BASIN

08263490 - RIO GRANDE AT SHEEPS CROSSING CAMPGROUND NEAR CERRO,NM (LAT 36 45 13 LONG 105 40 20 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	TURBIDITY (NTU) (00076)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
OCT											
18...	1510	280	286	8.4	12.0	3.6	8.4	98	16	30	5.7

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)
OCT											
18...	21	.9	4.3	100	0	89	42	5.5	.4	27	186

DATE	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CYANIDE TOTAL (MG/L AS CN) (00720)
OCT											
18...	.05	.07	.01	.69	.75	.040	.02	20	3	6.2	.00

DATE	TIME	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MOLYBDENUM, TOTAL RECOVERABLE (UG/L AS MO) (01062)	MOLYBDENUM, DISSOLVED (UG/L AS MO) (01060)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
OCT								
18...	1510	<10	20	3	1	2	20	9

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)
OCT		
18...	1510	43

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SEDIMENT DISCHARGE, SUSPENDED (T/DAY) (80155)
OCT					
18...	1520	280	12.0	55	42

SANTA FE RIVER BELOW TWO MILE RESERVOIR, SANTA FE,NM (LAT 35 41 11 LONG 105 53 40 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
JUN 28...	1330	25	60	7.3	16.0
JUL 05...	0700	13	69	7.4	14.5

SANTA FE RIVER AT DELGADO STREET BRIDGE, SANTA FE NM (LAT 35 41 04 LONG 105 55 50 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)
JUN 28...	1332	19	102	7.8	32.5	20.5	8.0	33	12	9.4	2.2	3.2
JUL 05...	0755	9.6	116	7.6	--	14.0	--	--	--	--	--	--

DATE	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
JUN 28...	.2	.8	21	13	2.1	.2	12	56	10	90	5.8
JUL 05...	--	--	--	--	--	--	--	--	--	--	--

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JUN 28...	1332	29	93

SANTA FE RIVER AT DON GASPAR STREET BRIDGE, SANTA FE,NM (LAT 35 41 07 LONG 105 56 27 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
JUN 28...	1310	19	100	7.9	33.5	20.5	8.0	37	15	11	2.3
JUL 05...	0810	10	119	7.8	--	14.0	--	--	--	--	--

SANTA FE RIVER AT DON GASPAR STREET BRIDGE, SANTA FE,NM (LAT 35 41 07 LONG 105 56 27 00) - Continued

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
JUN											
28...	3.4	.2	.8	22	14	2.1	.2	12	59	20	90
JUL											
05...	--	--	--	--	--	--	--	--	--	--	--

SANTA FE RIVER AT SAINT FRANCIS DRIVE BRIDGE, SANTA FE,NM (LAT 35 41 18 LONG 105 57 14 10)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
JUN											
28...	1250	20	105	8.0	33.0	20.5	8.5	37	13	11	2.3
JUL											
05...	0915	10	125	7.6	--	14.0	--	--	--	--	--

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
JUN											
28...	3.5	.3	.9	24	15	2.5	.2	13	63	20	110
JUL											
05...	--	--	--	--	--	--	--	--	--	--	--

SANTA FE RIVER AT CAMINO ALIRE BRIDGE, SANTA FE NM (LAT 35 41 05 LONG 105 57 59 10)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE, AIR (DEG C) (00020)	TEMPERATURE (DEG C) (00010)	OXYGEN, DISSOLVED (MG/L) (00300)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
JUN											
28...	1230	19	115	8.2	33.5	21.0	8.2	37	13	11	2.4
JUL											
05...	0950	10	127	7.5	--	16.0	--	--	--	--	--

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
JUN											
28...	3.5	.3	.8	24	15	2.2	.2	12	62	40	60
JUL											
05...	--	--	--	--	--	--	--	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

RIO GRANDE BASIN -- Continued

SANTA FE RIVER AT CAMINO CARLOS RAEL, SANTA FE, NM (LAT 35 40 18 LONG 105 59 12 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JUN 28...	1110	19	115	8.2	28.0	20.0	8.2	37	12	11
JUL 05...	1035	10	134	7.8	--	19.0	--	--	--	--

DATE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
JUN 28...	2.2	3.6	.3	.8	25	15	2.5	.2	12	62
JUL 05...	--	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)
JUN 28...	.02	.01	.14	.17	.030	30	80	5	7.7	7.3
JUL 05...	--	--	--	--	--	--	--	--	--	--

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
JUN 28...	1110	1	0	0	20	30	0	<1	0	0

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
JUN 28...	0	<3	5	1	510	80	32	0	20

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOV-ERABLE (UG/L AS HG) (71900)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)
JUN 28...	5	.7	.4	0	0	0	0	20	<3

DATE	TIME	COLI-FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) (31625)	STREP-TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JUN 28...	1110	66	430

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

RIO GRANDE BASIN -- Continued

SANTA FE RIVER AT CROSSING NEAR SAN ISIDRO CEMETARY AT AGUA FRIA, NM (LAT 35 39 36 LONG 106 00 43 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
JUN 28...	1500	17	107	8.3	23.5
JUL 05...	1125	7.9	138	8.0	21.5

SANTA FE RIVER ABOVE OLD RACE TRACK, NEAR AGUA FRIA, NM (LAT 35 39 02 LONG 106 02 10 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)
JUL 05...	1150	6.8	142	8.1	23.0

SANTA FE RIVER NEAR SANTA FE AIRPORT NEAR SANTA FE, NM (LAT 35 37 43 LONG 106 05 33 00)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)
JUN 28...	1022	21	280	7.8	27.5	21.0	7.8	54	24	17	2.7
JUL 05...	0830	10	322	6.9	--	15.0	--	--	--	--	--
05...	1330	12	411	7.0	--	25.0	--	--	--	--	--

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)
JUN 28...	19	1.1	3.6	30	23	13	.4	14	111	70	70
JUL 05...	--	--	--	--	--	--	--	--	--	--	--
05...	--	--	--	--	--	--	--	--	--	--	--

SANTA FE RIVER NEAR CIENEGUILLA CHURCH NEAR CANON, NM (LAT 35 36 06 LONG 106 07 19 10)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	OXYGEN, DIS-SOLVED (MG/L) (00300)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)
JUN 28...	0922	13	240	8.0	25.0	18.0	8.5	56	0	18
JUL 05...	0920	8.4	298	6.8	--	15.0	--	--	--	--

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

RIO GRANDE BASIN — Continued

SANTA FE RIVER NEAR CIENEGUILLA CHURCH NEAR CANON, NM (LAT 35 36 06 LONG 106 07 19 10) - Continued

DATE	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)
JUN 28...	2.8	17	1.0	3.0	62	20	9.4	.4	14
JUL 05...	--	--	--	--	--	--	--	--	--

DATE	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
JUN 28...	122	.18	3.5	1.0	4.7	.010	70	40	21
JUL 05...	--	--	--	--	--	--	--	--	--

DATE	TIME	COLIFORM, FECAL, 0.7 UM-MF (COLS./100 ML) (31625)	STREPTOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) (31673)
JUN 28...	0922	270000	19000

SANTA FE RIVER AT CANON, NM (LAT 35 34 49 LONG 106 08 14 10)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)
JUL 05...	1025	9.9	304	6.8	16.0

SANTA FE RIVER ABOVE MOUTH OF CIENEGA CREEK AT LA CIENEGA, NM (LAT 35 33 27 LONG 106 08 59 10)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)
JUL 05...	1155	9.5	315	6.7	21.0

CIENEGA CREEK ABOVE MOUTH OF ALAMO CREEK AT LA CIENEGA, NM (LAT 35 33 26 LONG 106 09 00 10)

DATE	TIME	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)
JUN 28...	1600	545	8.0	170	0	51	11	53	1.8

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

RIO GRANDE BASIN -- Continued

CIENEGA CREEK ABOVE MOUTH OF ALAMO CREEK AT LA CIENEGA, NM (LAT 35 33 26 LONG 106 09 00 10) - Continued

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)
JUN 28...	3.7	230	51	8.7	.7	34	351	90	0

08329840 HAHN ARROYO AT ALBUQUERQUE NM (LAT 35 07 31 LONG 106 35 10 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	OXYGEN DEMAND, CHEMICAL (HIGH LEVEL) (MG/L) (00340)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
AUG 14...	2245	E2.0	130	6.9	20.0	98	51	8	18	1.5
15...	0715	42	50	7.0	18.0	22	23	3	8.3	.5

DATE	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)
AUG 14...	5.2	.3	2.6	43	15	3.8	.2	.1	73	.01
15...	1.4	.1	1.2	20	8.5	1.0	.1	.3	34	.06

DATE	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
AUG 14...	.12	.04	.96	1.0	.300	.00	120	70	36	30
15...	.10	.04	.78	.88	.250	.05	20	50	9.3	4.5

DATE	TIME	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)
AUG 14...	2245	120	70	98	12
15...	0715	20	50	110	1

HUTCHENSON STREAM NEAR HUTCHENSON RANCH, NM (LAT 33 59 40 LONG 108 13 48 10)
(LOCAL INDENTIFIER - 04S.13W.06.222)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
APR 26...	1515	1.5	200	8.0	17.0	85	9	19	9.0	6.5	.3	2.2

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

RIO GRANDE BASIN -- Continued

HUTCHENSON STREAM NEAR HUTCHENSON RANCH, NM (LAT 33 59 40 LONG 108 13 48 10) - Continued
(LOCAL INDENTIFIER - 04S.13W.06.222)

DATE	BICARBONATE (MG/L AS HCO3) (00440)	CARBONATE (MG/L AS CO3) (00445)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
APR 26...	93	0	76	32	6.1	.2	34	155	.00	50	110	10

DATE	TIME	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
APR 26...	1515	0	50	0	20	0	110	0	10

CASTLE SPRING ABOVE DIVERSION DAM AT MILE 15.4, NM (LAT 32 11 59 LONG 104 15 13 10)
(LOCAL IDENTIFIER - 24S.26E.24.441)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)
OCT 16...	1030	.46	1940	7.4	16.5	22
MAY 14...	1440	.80	1910	7.6	23.0	--
JUL 18...	0930	.32	1900	7.4	22.0	--

SAN JUAN RIVER BASIN

KIMBETO WASH AT KIMBETO, NM (LAT 36 10 50 LONG 107 50 25 10)
(LOCAL IDENTIFIER - 23N.10W.36.424)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)
NOV 03...	1145	E50	457	8.5	7.0	11	0	3.5	.5	110	15

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
NOV 03...	1.0	180	55	4.0	.8	17	359	301	90	1200	10

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)
NOV 03...	1145	100	9	4800	0	200	90

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

KIMBETO WASH AT KIMBETO, NM (LAT 36 10 50 LONG 107 50 25 10)
(LOCAL IDENTIFIER - 23N.10W.36.424)

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV						
03...	250000	1200	700	0	9300	10

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV					
03...	1145	E50	7.0	41500	97

ESCAVADO WASH AT HIWAY 56 BRIDGE NEAR CHACO CANYON TRADING POST, NM (LAT 36 06 14 LONG 107 57 20 10)
(LOCAL IDENTIFIER - 22N.11W.25.433)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)
NOV												
03...	1215	E200	580	8.5	8.0	25	0	9.0	.5	150	13	2.0
03...	1515	E500	560	8.2	8.0	--	--	--	--	--	--	--

DATE	BICAR-BONATE (MG/L AS HCO3) (00440)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV											
03...	--	240	110	3.9	.7	18	445	440	80	1300	10
03...	352	289	--	--	--	--	--	--	60	240	10

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	BORON, DIS-SOLVED (UG/L AS B) (01020)
NOV							
03...	1215	90	7	5600	100	190	80
03...	1515	90	9	5600	0	170	60

DATE	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
NOV						
03...	330000	1300	900	0	14000	10
03...	330000	240	800	0	11000	10

ESCAVADO WASH AT HIWAY 56 BRIDGE NEAR CHACO CANYON TRADING POST, NM (LAT 36 06 14 LONG 107 57 20 10) (LOCAL IDENTIFIER - 22N.11W.25.433) - Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	TEMPER-ATURE (DEG C) (00010)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
NOV					
03...	1215	E200	8.0	59300	93
03...	1515	E500	8.0	51500	93

TSOSIE SWALE NEAR KIMBETO, NM (LAT 36 07 43 LONG 107 57 14 10) (LOCAL IDENTIFIER - 22N.11W.24.214)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	BICAR-BONATE (MG/L AS HCO3) (00440)	ALKA-LINITY (MG/L AS CACO3) (00410)	SAMPLE SOURCE (72005)
NOV							
24...	1830	E2.0	470	7.5	232	190	40
24...	1840	E5.0	380	7.2	192	157	40
24...	1900	E10	380	7.2	176	144	40
FEB							
14...	1355	E2.0	360	7.6	148	121	40
14...	1358	E5.0	210	7.8	88	72	40
14...	1400	E10	190	7.3	84	69	40
JUL							
01...	1500	E2.0	420	7.7	196	161	40
01...	1501	E5.0	380	7.6	212	174	40
01...	1502	E10	430	7.5	232	190	40
AUG							
16...	0140	E2.0	385	7.1	--	--	40
16...	1900	E5.0	355	7.1	--	--	40
17...	1530	E10	380	7.4	--	--	40

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	SAMPLE SOURCE (72005)
NOV								
24...	1830	18	1200	240	88000	200	2200	40
24...	1840	17	800	230	82000	200	1200	40
24...	1900	42	70	180	62000	200	920	40
FEB								
14...	1355	5	900	120	67000	0	1200	40
14...	1358	4	200	100	14000	0	270	40
14...	1400	1	200	70	14000	0	210	40
JUL								
01...	1500	15	2000	260	120000	500	2400	40
01...	1501	33	2100	260	120000	400	3000	40
01...	1502	0	1300	220	92000	300	1900	40
AUG								
16...	0140	29	2600	240	9400	200	2600	40
16...	1900	29	2600	260	120000	400	3300	40
17...	1530	10	2600	240	82000	300	2000	40

NOTE.--Under SAMPLE SOURCE the number 40 indicates single-stage sample.

TSOSIE SWALE NEAR KIMBETO, NM (LAT 36 07 43 LONG 107 57 14 10) LOCAL IDENTIFIER - 22N.11W.24.214) - Continued

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
NOV					
24...	1830	E2.0	9890	100	40
24...	1840	E5.0	9990	97	40
24...	1900	E10	7120	98	40
FEB					
14...	1355	E2.0	5390	97	40
14...	1358	E5.0	931	99	40
14...	1400	E10	881	95	40
JUL					
01...	1500	E2.0	15300	98	40
01...	1501	E5.0	13400	96	40
01...	1502	E10	9410	98	40
AUG					
16...	0140	E2.0	11700	93	40
16...	1900	E5.0	14300	81	40
17...	1530	E10	11100	99	40

TRIBUTARY TO DE-NA-ZIN WASH 0.9 MILE NORTH OF TANNER LAKE, NM (LAT 36 14 39 LONG 108 08 42 10) (LOCAL IDENTIFIER - 23N.12W.08.1341)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	BICAR-BONATE (MG/L AS HCO3) (00440)	ALKA-LINITY (MG/L AS CACO3) (00410)	SAMPLE SOURCE (72005)
NOV							
03...	0400	E20	520	7.4	274	225	40
03...	0600	100	390	8.0	264	217	40

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	SAMPLE SOURCE (72005)
NOV								
03...	0400	30	2400	160	200000	500	12000	40
03...	0600	30	1600	180	180000	400	7100	40

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
NOV					
03...	0400	E20	33700	62	40
03...	0600	E40	27100	91	40

TRIBUTARY TO DE-NA-ZIN WASH 1.8 MILES NORTH OF TANNER LAKE, NM (LAT 36 15 28 LONG 108 08 46 10) (LOCAL IDENTIFIER - 23N.12W.05.1334)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	BICAR-BONATE (MG/L AS HCO3) (00440)	ALKA-LINITY (MG/L AS CACO3) (00410)	SAMPLE SOURCE (72005)
NOV							
03...	0400	E20	520	7.2	266	218	40

NOTE.--Under SAMPLE SOURCE the number 40 indicates single-stage sample.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

TRIBUTARY TO DE-NA-ZIN WASH 1.8 MILES NORTH OF TANNER LAKE, NM (LAT 36 15 28 LONG 108 08 46 10)
(LOCAL IDENTIFIER - 23N.12W.05.1334) - Continued

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BORON, TOTAL RECOV-ERABLE (UG/L (01022)	IRON, TOTAL RECOV-ERABLE (UG/L (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L (01055)	SAMPLE z%zz (72005)
NOV 03...	0400	55	4000	240	310000	800	20000	40

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
NOV 03...	0400	E20	57100	69	40

SIDE WASH 0.5 MI NORTH OF TANNER LAKE, NM (LAT 36 14 23 LONG 108 08 49 10)
(LOCAL IDENTIFIER - 23N.12W.06.313)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	SAMPLE SOURCE (72005)
AUG 09...	1400	E.10	1300	7.5	40

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SAMPLE SOURCE (72005)
AUG 09...	1400	150	1600	250	240000	700	25000	18	40

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
AUG 09...	1400	E.10	154000	86	40

CAPTAIN TOM'S WASH AT NEWCOMB, NM (LAT 36 17 10 LONG 108 42 19 10)
LOCAL IDENTIFIER - NR049.0115 x 0147)

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)	TEMPER-ATURE (DEG C) (00010)	SAMPLE SOURCE (72005)
MAR 29...	1040	E5.0	735	7.5	9.0	9.0	29

NOTE.--Under SAMPLE SOURCE the number 29 indicates dip or grab sample and 40 indicates single stage sample.

CAPTAIN TOM'S WASH AT NEWCOMB, NM (LAT 36 17 10 LONG 108 42 19 10) LOCAL IDENTIFIER - NR049.0115 x 0147) - Continued

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
MAR									
29...	1040	30	230	14	170	13	160	.2	18

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
MAR						
29...	1040	E5.0	9.0	13100	59	29

SANOSTEE WASH NEAR LITTLE WATER, NM (LAT 36 26 25 LONG 108 43 17 10) (LOCAL IDENTIFIER - NR049.0123 x 0041)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	SAMPLE SOURCE (72005)
MAR						
29...	1100	E10	340	7.5	9.0	29

DATE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RA-226, DIS- SOLVED, PLAN- CHET COUNT (PCI/L) (09510)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
MAR									
29...	1100	3.5	170	4.2	110	3.9	110	.2	1.9

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	TEMPER- ATURE (DEG C) (00010)	SEDI- MENT, SUS- PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
MAR						
29...	1100	E10	9.0	3390	99	29

NAVAJO MINE 1973 RECLAMATION PLOT NEAR FRUITLAND, NM (LAT 36 40 42 LONG 108 27 14 10) (LOCAL IDENTIFIER - 29N.15W.31.441)

DATE	TIME	STREAM- FLOW, INSTAN- TANEOUS (CFS) (00061)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
FEB								
13...	1600	E.01	410	6.8	120	86	38	6.9
JUN								
01...	1800	E.01	370	6.5	--	--	--	--

NOTE.—Under SAMPLE SOURCE the number 29 indicates dip or grab sample.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

NAVAJO MINE 1973 RECLAMATION PLOT NEAR FRUITLAND, NM (LAT 36 40 42 LONG 108 27 14 10)
(LOCAL IDENTIFIER - 29N.15W.31.441) - Continued

DATE	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	ALKA-LINITY (MG/L AS CACO3) (00410)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)
FEB 13...	23	.9	12	46	38	2.6	2.4	.45	.22
JUN 01...	--	--	--	--	--	--	--	--	--

DATE	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DIS-SOLVED (MG/L AS C) (00681)	SAMPLE SOURCE (72005)
FEB 13...	3.3	.100	.01	30	50	22	9.2	40
JUN 01...	--	--	--	--	--	--	--	40

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOV-ERABLE (UG/L AS BA) (01007)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOV-ERABLE (UG/L AS B) (01022)	CADMIUM TOTAL RECOV-ERABLE (UG/L AS CD) (01027)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, TOTAL RECOV-ERABLE (UG/L AS CR) (01034)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)
FEB 13...	1600	1	1	100	0	240	1	0	0	0
JUN 01...	1800	7	--	400	--	120	--	--	--	--

DATE	COBALT, TOTAL RECOV-ERABLE (UG/L AS CO) (01037)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOV-ERABLE (UG/L AS CU) (01042)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOV-ERABLE (UG/L AS FE) (01045)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOV-ERABLE (UG/L AS PB) (01051)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, TOTAL RECOV-ERABLE (UG/L AS MN) (01055)
FEB 13...	4	0	940	240	8600	30	81	0	220
JUN 01...	--	--	--	--	20000	--	0	--	670

DATE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, TOTAL (UG/L AS SE) (01147)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOV-ERABLE (UG/L AS AG) (01077)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOV-ERABLE (UG/L AS ZN) (01092)	ZINC, DIS-SOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
FEB 13...	50	.0	1	1	0	0	100	30	40
JUN 01...	--	--	--	--	--	--	--	--	40

DATE	TIME	STREAM-FLOW, INSTAN-TANEOUS (CFS) (00061)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
FEB 13...	1600	E.01	720	83	40
JUN 01...	1800	E.01	1670	83	40

NOTE.—Under SAMPLE SOURCE the number 40 indicates single-stage sample.

NAVAJO MINE 1976 SPOIL PILE NEAR FRUITLAND, NM (LAT 36 41 58 LONG 108 26 07 10)
(LOCAL IDENTIFIER - 29N.15W.29.234)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
FEB											
13...	1600	.05	590	6.8	36	0	13	.9	100	7.2	3.7
13...	1605	E.01	1120	7.1	52	0	18	1.6	210	13	6.4

DATE	BICARBONATE (MG/L AS HCO3) (00440)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
FEB											
13...	52	43	--	--	--	--	--	--	2.0	1.9	1.1
13...	140	115	430	39	.6	5.5	740	780	--	--	--

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	SAMPLE SOURCE (72005)
FEB										
13...	1.0	4.1	.040	.00	90	30	50	19	3.2	40
13...	--	--	--	--	210	30	10	--	--	40

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
FEB										
13...	1600	1	0	100	0	140	90	0	0	20
13...	1605	8	0	200	0	260	210	--	--	--

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
FEB										
13...	0	16	0	1500	80	39000	30	38	0	310
13...	--	--	--	--	--	98000	30	100	0	550

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
FEB										
13...	50	.2	.0	8	6	0	0	370	20	40
13...	10	--	--	--	--	--	--	--	--	40

NOTE.—Under SAMPLE SOURCE the number 40 indicates single-stage sample.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

NAVAJO MINE 1976 SPOIL PILE NEAR FRUITLAND, NM (LAT 36 41 58 LONG 108 26 07 10) (LOCAL IDENTIFIER - 29N.15W.29.234) - Continued

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
FEB					
13...	1600	E.01	2460	100	40
13...	1605	E.01	5670	100	40

NAVAJO MINE PIT 2 MI NORTH OF FRUITLAND, NM (LAT 36 42 58 LONG 108 25 31 20) (LOCAL IDENTIFIER - NR049.0975 x 0235)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)
APR											
17...	0905	.00	4600	6.7	14.5	1400	1300	250	180	720	8.5

DATE	POTASSIUM, DISSOLVED (MG/L AS K) (00935)	BICARBONATE (MG/L AS HCO3) (00440)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)
APR											
17...	13	96	79	2700	59	.9	.1	4240	3990	4.6	4.5

DATE	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)
APR										
17...	.03	.03	4.7	.020	.00	980	40	20	15	11

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
APR										
17...	0905	1	0	0	100	1100	980	0	0	10

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	COPPER, TOTAL RECOVERABLE (UG/L AS CU) (01042)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
APR										
17...	0	0	0	10	15	30	40	8	6	30

NOTE.--Under SAMPLE SOURCE the number 40 indicates single-stage sample.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

NAVAJO MINE PIT 2 MI NORTH OF FRUITLAND, NM (LAT 36 42 58 LONG 108 25 31 20)
(LOCAL IDENTIFIER - NR049.0975 x 0235) - Continued

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)
APR									
17...	20	1.5	1.2	7	8	0	0	30	30

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)
APR				
17...	0905	.00	14.5	179

NAVAJO MINE 1978 RECLAMATION PLOT NEAR FRUITLAND, NM (LAT 36 43 48 LONG 108 25 13 10)
(LOCAL IDENTIFIER - 29N.15W.16.231)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
FEB											
13...	1600	E.50	1330	6.0	460	380	140	26	120	2.4	12
13...	1605	E.50	1330	6.0	490	410	150	27	130	2.6	12

DATE	BICARBONATE (MG/L AS HCO3) (00440)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
FEB											
13...	94	77	--	--	--	--	--	--	.07	.07	3.8
13...	90	74	610	26	.8	4.6	1120	1010	--	--	--

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	SAMPLE SOURCE (72005)
FEB										
13...	6.2	10	.080	.01	590	2100	210	120	98	40
13...	--	--	--	--	650	1600	300	--	--	40

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
FEB										
13...	1600	2	2	100	0	630	590	0	0	20
13...	1605	2	2	200	0	650	650	--	--	--

NOTE.--Under SAMPLE SOURCE the number 40 indicates single-stage sample.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

NAVAJO MINE 1978 RECLAMATION PLOT NEAR FRUITLAND, NM (LAT 36 43 48 LONG 108 25 13 10) (LOCAL IDENTIFIER - 29N.15W.16.231) - Continued

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
FEB									
13...	0	4	0	4500	2100	23	0	280	210
13...	--	--	--	10000	1600	100	0	390	300

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
FEB									
13...	.2	.0	2	1	0	0	90	60	40
13...	--	--	--	--	--	--	--	--	40

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
FEB					
13...	1600	E.50	499	97	40
13...	1605	E.50	650	57	40

SAN JUAN MINE 1978 PIT NEAR FRUITLAND (LAT 36 46 20 LONG 108 25 03 20) (LOCAL IDENTIFIER - 30N.15W.33.243)

DATE	TIME	TEMPERATURE (DEG C) (00010)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)
MAR				
16...	0915	2.5	2030	100

SAN JUAN MINE 1974 RECLAMATION PLOT NEAR FRUITLAND, NM (LAT 36 46 37 LONG 108 25 10 10) (LOCAL IDENTIFIER - 30N.15W.33.212)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
FEB											
13...	1600	E.05	145	6.9	46	0	14	2.7	7.3	.5	11
13...	1605	E.05	--	--	89	0	31	2.9	9.8	.5	17

NOTE.—Under SAMPLE SOURCE the number 40 indicates single-stage sample.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

SAN JUAN MINE 1974 RECLAMATION PLOT NEAR FRUITLAND, NM (LAT 36 46 37 LONG 108 25 10 10)
(LOCAL IDENTIFIER - 30N.15W.33.212) - Continued

DATE	BICARBONATE (MG/L AS HCO3) (00440)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
FEB											
13...	76	62	--	--	--	--	--	--	.41	.42	.48
13...	--	100	13	9.8	.1	4.7	132	149	--	--	--

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	SAMPLE SOURCE (72005)
FEB										
13...	1.3	2.2	.330	.18	70	10	20	15	7.2	40
13...	--	--	--	--	100	140	320	--	--	40

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)
FEB										
13...	1600	1	1	0	0	100	70	0	0	10
13...	1605	10	4	1200	100	140	100	--	--	--

DATE	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)
FEB									
13...	0	0	0	2700	10	36	0	100	20
13...	--	--	--	66000	140	200	0	2000	320

DATE	MERCURY TOTAL RECOVERABLE (UG/L AS HG) (71900)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
FEB									
13...	.0	.0	1	0	0	0	90	10	40
13...	--	--	--	--	--	--	--	--	40

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
FEB					
13...	1600	E.05	172	93	40
13...	1605	E.05	4370	100	40

NOTE.--Under SAMPLE SOURCE the number 40 indicates single-stage sample.

ANALYSES OF SAMPLES COLLECTED AT MISCELLANEOUS SITES

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

SAN JUAN MINE 1977 GRADED PILE NEAR FRUITLAND, NM (LAT 36 46 31 LONG 108 25 08 10)
(LOCAL IDENTIFIER - 30N.15W.33.214)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
NOV											
03...	1000	E1.0	920	6.9	130	0	43	5.4	130	5.0	12
03...	1005	E1.0	640	7.0	120	0	41	4.4	94	3.7	14

DATE	BICARBONATE (MG/L AS HCO3) (00440)	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DISSOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA TOTAL (MG/L AS N) (00610)
NOV											
03...	180	148	--	--	--	--	--	--	.54	.14	13
03...	256	210	130	5.9	.5	6.8	402	423	--	--	--

DATE	NITROGEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITROGEN, TOTAL (MG/L AS N) (00600)	PHOSPHORUS, TOTAL (MG/L AS P) (00665)	PHOSPHORUS, ORTHO, DISSOLVED (MG/L AS P) (00671)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	CARBON, ORGANIC DISSOLVED (MG/L AS C) (00681)	SAMPLE SOURCE (72005)
NOV										
03...	.00	14	.580	.00	--	790	280	91	16	40
03...	--	--	--	--	180	40	100	--	--	40

DATE	TIME	ARSENIC TOTAL (UG/L AS AS) (01002)	ARSENIC DISSOLVED (UG/L AS AS) (01000)	BARIUM, TOTAL RECOVERABLE (UG/L AS BA) (01007)	BARIUM, DISSOLVED (UG/L AS BA) (01005)	BORON, TOTAL RECOVERABLE (UG/L AS B) (01022)	BORON, DISSOLVED (UG/L AS B) (01020)	CADMIUM TOTAL RECOVERABLE (UG/L AS CD) (01027)	CADMIUM DISSOLVED (UG/L AS CD) (01025)
NOV									
03...	1000	30	3	500	0	280	--	0	0
03...	1005	26	2	800	0	220	180	--	--

DATE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, TOTAL (UG/L AS SE) (01147)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, TOTAL RECOVERABLE (UG/L AS AG) (01077)	SILVER, DISSOLVED (UG/L AS AG) (01075)	ZINC, TOTAL RECOVERABLE (UG/L AS ZN) (01092)	ZINC, DISSOLVED (UG/L AS ZN) (01090)	SAMPLE SOURCE (72005)
NOV									
03...	280	.0	1	1	0	0	370	10	40
03...	100	--	--	--	--	--	--	--	40

DATE	CHROMIUM, TOTAL RECOVERABLE (UG/L AS CR) (01034)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	COBALT, TOTAL RECOVERABLE (UG/L AS CO) (01037)	COBALT, DISSOLVED (UG/L AS CO) (01035)	IRON, TOTAL RECOVERABLE (UG/L AS FE) (01045)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, TOTAL RECOVERABLE (UG/L AS PB) (01051)	LEAD, DISSOLVED (UG/L AS PB) (01049)	MANGANESE, TOTAL RECOVERABLE (UG/L AS MN) (01055)
NOV									
03...	40	0	33	0	75000	790	77	1	1100
03...	--	--	--	--	100000	40	300	0	1800

NOTE.--Under SAMPLE SOURCE the number 40 indicates single-stage sample.

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN RIVER BASIN - Continued

SAN JUAN MINE 1977 GRADED PILE NEAR FRUITLAND, NM (LAT 36 46 31 LONG 108 25 08 10)
(LOCAL IDENTIFIER - 30N.15W.33.214) - Continued

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SEDIMENT, SUSPENDED (MG/L) (80154)	SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM (70331)	SAMPLE SOURCE (72005)
NOV					
03...	1000	E1.0	4690	100	40
03...	1005	E1.0	11300	100	40

NOTE.--Under SAMPLE SOURCE the number 40 indicates single stage sample.

PUERCO RIVER NEAR CHURCH ROCK, NM (LAT 35 36 45 LONG 108 33 50 00)

DATE	TIME	STREAMFLOW, INSTANTANEOUS (CFS) (00061)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)	SODIUM, DISSOLVED (MG/L AS NA) (00930)	SODIUM ADSORPTION RATIO (00931)	POTASSIUM, DISSOLVED (MG/L AS K) (00935)
JUL												
17...	1500	7.1	3450	3.6	28.0	1700	1700	560	75	260	2.7	13
19...	1800	8.0	2300	5.2	25.5	--	--	--	--	--	--	5.7

DATE	ALKALINITY (MG/L AS CACO3) (00410)	SULFATE DISSOLVED (MG/L AS SO4) (00945)	CHLORIDE, DISSOLVED (MG/L AS CL) (00940)	FLUORIDE, DISSOLVED (MG/L AS F) (00950)	SILICA, DISSOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTITUENTS, DISSOLVED (MG/L) (70301)	NITROGEN, NO2+NO3 DISSOLVED (MG/L AS N) (00631)	NITROGEN, AMMONIA DISSOLVED (MG/L AS N) (00608)	BORON, DISSOLVED (UG/L AS B) (01020)	IRON, DISSOLVED (UG/L AS FE) (01046)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)
JUL											
17...	0	2300	38	.8	41	3350	3.5	27	160	51000	89
19...	--	--	--	--	--	--	--	--	--	--	--

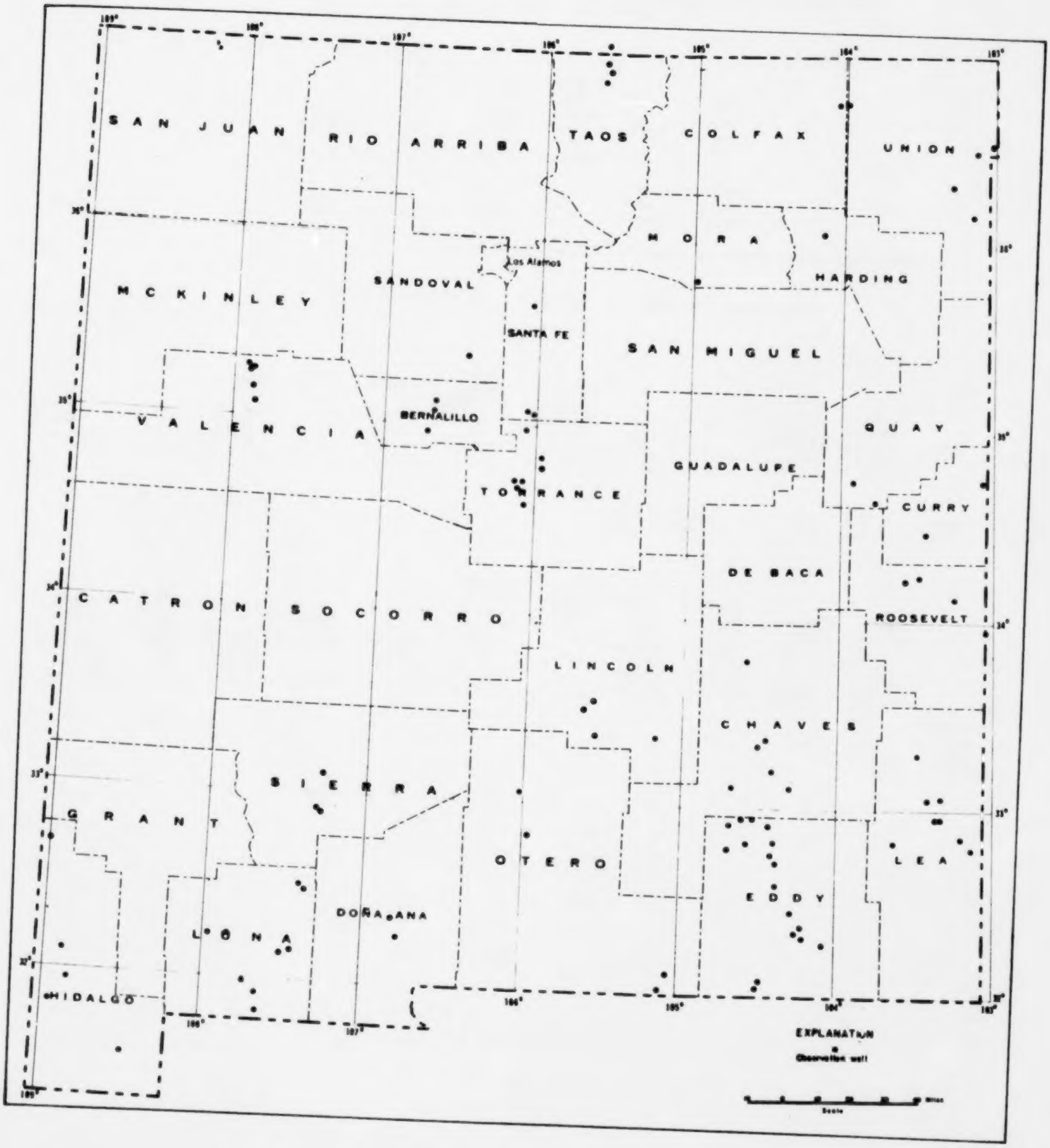

Figure 6.-- Map of New Mexico showing location of observation wells.

BERNALILLO COUNTY

Albuquerque Area

345730106431001. Local number, 9N.2E.34.322.
LOCATION.--Lat 34°57'30", long 106°43'10", Hydrologic Unit 13020203.
Owner: Denison.
AQUIFER.--Santa Fe Group of middle (?) Miocene to Pleistocene (?) Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth unknown, cased to 12 ft (3.7 m).
DATUM.--Altitude of land-surface datum is 4,910 ft (1,497 m). Measuring point: Top of casing, 1.38 ft (0.42 m) above land-surface datum.
PERIOD OF RECORD.--July 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 11.22 ft (3.42 m) below land-surface datum, Aug. 10, 1973; lowest, 16.30 ft (4.97 m) below land-surface datum, Jan. 12, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 17	not measured
July 18	not measured

350655106395001. Local number, 10N.2E.12.223.
LOCATION.--Lat 36°06'55", long 106°39'50", Hydrologic Unit 13020203.
Owner: City of Albuquerque.
AQUIFER.--Alluvium and Santa Fe Group.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 950 ft (290 m).
DATUM.--Altitude of land-surface datum is 4,962 ft (1,512 m). Measuring point: Top north side of casing, 6.00 ft (1.83 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1953, Jan. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.10 ft (3.69 m) below land-surface datum, Apr. 16, 1953, lowest measured, 34.74 ft (10.59 m) below land-surface datum, Aug. 31, 1964.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 17	29.76
July 18	28.85

350415106403001. Local number, 10N.2E.24.413.
LOCATION.--Lat 35°04'15", long 106°40'30", Hydrologic Unit 13020203.
Owner: City of Albuquerque.
AQUIFER.--Alluvium and Santa Fe Group.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth and casing information not available.
DATUM.--Altitude of land-surface datum is 4,945 ft (1,507 m). Measuring point: Top east side of casing, 5.50 ft (1.68 m) above land-surface datum.
PERIOD OF RECORD.--Nov. 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.43 ft (4.39 m) below land-surface datum, July 18, 1979; lowest measured, 27.05 ft (8.24 m) below land-surface datum, Aug. 12, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 17	14.88
July 18	14.43

CHAVES COUNTY

Roswell Basin

334645104344501. Local number, 7S.23E.23.244.
LOCATION.--Lat 33°46'45", long 104°34'45", Hydrologic Unit 13060005.
Owner: Jess Corn.
AQUIFER.--San Andres Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter 14 in (0.36 m), depth 426 ft (130 m).
DATUM.--Altitude of land-surface datum is 3,810 ft (1,161 m). Measuring point: Lower outer edge of mouth of discharge pipe, 3.71 ft (1.13 m) above land-surface datum.
PERIOD OF RECORD.--May 1951-Mar. 1960, Jan. 1962-Jan. 1966, Jan. 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 239.83 ft (73.10 m) below land-surface datum, May 26, 1951; lowest, 290.80 ft (88.40 m) below land-surface datum, Aug. 21, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 to SEPTEMBER 1979

DATE	WATER LEVEL
Feb. 1	284.43
Aug. 17	286.37

CHAVES COUNTY

Roswell Basin

331930104261001. Local number, 11S.25E.29.34333.
LOCATION.--Lat 33°19'30", long 104°26'10", Hydrologic Unit 13060007.
Owner: Valle Ranch.
AQUIFER.--Valley Fill
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 160 ft (48.8 m), cased to 160 ft (48.8 m).
DATUM.--Altitude of land-surface datum is 3,535 ft (1,077 m). Measuring point: Edge of pump base, southeast corner, at land-surface datum.
PERIOD OF RECORD.--Aug. 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 16.20 ft (4.94 m) below land-surface datum, Jan. 13, 1975; lowest measured, 20.97 ft (6.37 m) below land-surface datum, Aug. 18, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 19	not measured
Aug. 20	pumping

332200104270001. Local number, 12S.25E.9.422.
LOCATION.--Lat 33°22'00", long 104°27'00", Hydrologic Unit 13060007.
Owner: Cumberland Townsite.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in (0.25 m), reported depth 90 ft (27.4 m), cased to 90 ft (27.4 m).
DATUM.--Altitude of land-surface datum is 3,564 ft (1,086 m). Measuring point: Top of 3/4 in (1.9 cm) collar, 0.62 ft (0.19 m) above land-surface datum.
PERIOD OF RECORD.--May 1937 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.64 ft (11.78 m) below land-surface datum, Oct. 16, 1941; lowest measured, 83.06 ft (25.32 m) below land-surface datum, Aug. 21, 1973.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 19	not measured
Aug. 20	79.75

331205104245101. Local number, 12S.25E.23.344.
LOCATION.--Lat 33°12'05", long 104°24'51", Hydrologic Unit 13060007.
Owner: U.S. Geological Survey.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 9 to 7 in (0.23 to 0.18 m), depth 930 ft (283 m), 9 in (0.23 m) casing 0-304 ft (0-93 m), 7 in (0.18 m) casing 304-714 ft (93-218 m).
DATUM.--Altitude of land-surface datum is 3,539 ft (1,079 m). Measuring point: Top of recorder shelf, 2.90 ft (0.88 m) above land surface datum.
PERIOD OF RECORD.--Jan. 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 21.75 ft (6.63 m) below land-surface datum, Feb. 21, 1968; lowest, 193.29 ft (58.91 m) below land-surface datum, Feb. 5, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	62.43	41.68	34.32	30.17	28.12	37.45	126.42	102.33	--	124.64	130.07	113.40
10	58.62	40.00	34.28	29.62	27.94	49.83	125.58	110.01	89.45	136.78	142.22	114.14
15	57.64	38.38	--	29.14	27.56	--	--	112.68	104.34	133.40	150.17	124.37
20	55.90	--	--	28.91	26.95	--	--	--	115.42	--	110.89	119.40
25	48.58	36.55	--	28.43	26.85	77.05	122.90	--	109.21	136.84	101.99	100.04
eom	43.88	36.00	30.78	28.20	31.69	113.01	105.74	--	120.15	133.70	106.20	100.80

WTR YEAR 1979 MAX 26.85 Feb. 23, 1979 MIN 153.66 Aug. 16, 1979

330700104402501. Local number, 14S.23E.8.144.
LOCATION.--Lat 33°07'00', long 104°40'25", Hydrologic Unit 13060009.
Owner: M. D. Kincaid.
AQUIFER.--San Andres Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 8 in (0.20 m), depth 460 ft (140 m), casing information not available.
DATUM.--Altitude of land-surface datum is 3,845 ft (1,173 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1940 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 257.55 ft (78.50 m) below land-surface datum, Feb. 9, 1943; lowest measured, 327.34 ft (99.77 m) below land-surface datum, Aug. 28, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 23	314.93
Aug. 23	317.76

CHAVES COUNTY

Roswell Basin

330640104174501. Local number, 14S.26E.12.433b.
LOCATION.--Lat 33°06'40", long 104°17'45", Hydrologic Unit 13060007.
Owner: C. B. Donaghay.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 13 in (0.33 m), depth 125 ft (38.1 m), cased 0-125 ft (0-38.1 m), perforated 50-115 ft (15.2-35.1 m).
DATUM.--Land-surface datum is 3,396.4 ft (1,035.2 m) above mean sea level. Measuring point: Top of casing, at land surface datum.
PERIOD OF RECORD.--Jan. 1940 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 12.50 ft (3.81 m) below land-surface datum, Jan. 22, 1942; lowest measured, 23.77 ft (7.25 m) below land-surface datum, Aug. 25, 1967.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 19	not measured
Aug. 20	21.06

COLFAX COUNTY

Capulin Basin

364500104031501. Local number, 29N.27E.16.222.
LOCATION.--Lat 36°45'00", long 104°03'15", Hydrologic Unit 11040001.
Owner: John King.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 120 ft (37 m), cased to 20 ft (37 m).
DATUM.--Land-surface datum is 6,821.5 ft (2,079.2 m) above mean sea Level. Measuring point: Top of casing, 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1957-Feb. 1969, Feb. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.65 ft (1.42 m) below land-surface datum, Feb. 3 and Aug. 24, 1960 lowest measured, 9.37 ft (2.86 m) below land-surface datum, Aug. 13, 1975.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 23	8.06
July 24	8.05

COSTILLA COUNTY (in Colorado)

Sunshine Valley

375655105354001. Local number, 1N.74W.33.332.
LOCATION.--Lat 37°56'55", long 105°35'40", Hydrologic Unit 13020101.
Owner: Waller and Allen.
AQUIFER.--Santa Fe Group.
WELL CHARACTERISTICS.--Drilled unused water-table well diameter 15 in (0.38 m), depth 232 ft (70.7 m), casing information not available.
DATUM.--Altitude of land-surface datum is 7,495 ft (2,284 m). Measuring point: Edge of hole inside pumpcase, 2.00 ft (0.60 m) above land-surface datum (since 1971).
PERIOD OF RECORD.--Feb. 1966 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 101.82 ft (31.03 m) below land-surface datum, Aug. 26, 1968; lowest measured, 134.87 ft (41.11 m) below land-surface datum, Aug. 19, 1971.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan.	not measured
July 25	134.52

CURRY COUNTY

Clovis Area

342815103270001. Local number, 3N.34E.23.433.
LOCATION.--Lat 34°28'15", long 103°27'00", Hydrologic Unit 12050001.
Owner: Monte Matlock.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), depth 418 ft (127 m), cased to 418 ft (127 m), perforated 365-418 ft (111-127 m).
DATUM.--Altitude of land-surface datum is 4,432 ft (1,351 m). Measuring point: Top of casing level, with concrete base, 0.40 ft (0.12 m) above land-surface datum (since 1967).
PERIOD OF RECORD.--Apr. 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 340.62 ft (103.82 m) below land-surface datum, Mar. 16, 1957; lowest measured, 360.64 ft (109.92 m) below land-surface datum, July 23, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 9	350.08
July 23	360.64

CURRY COUNTY

Clovis Area

4344500103052001. Local number, 6N.37E.8.333.
LOCATION.--Lat 34°45'00", long 103°05'20", Hydrologic Unit 11120101.
Owner: Paul Harrison.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 400 ft (121 m), casing information not available.
DATUM.--Altitude of land-surface datum is 4,430 ft (1,340 m). Measuring point: Southeast anchor bolt hole, 0.10 ft (0.03 m) above concrete base and 0.70 ft (0.21 m) above land surface datum.
PERIOD OF RECORD.--Jan. 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 289.30 ft (88.13 m) below land-surface datum, Jan. 3, 1975; lowest measured, 295.98 ft (89.97 m) below land-surface datum, Aug. 15, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 8	291.74
July 23	pumping

DOÑA ANA COUNTY

Rincon and Mesilla Valleys

322210106483001. Local number, 22S.1E.26.411.
LOCATION.--Lat 32°22'10", long 106°48'30", Hydrologic Unit 13030102.
Owner: H. Wortheim.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 107 ft (32.6 m), cased to 107 ft (32.6 m).
DATUM.--Altitude of land-surface datum is 3,920 ft (1,195 m). Measuring point: Top of east side of casing, 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.12 ft (3.07 m) below land-surface datum, Jan. 27, 1977; lowest measured, 25.57 ft (7.79 m) below land-surface datum, Apr. 25, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Feb. 1	16.74
Aug. 17	14.60

321620106461501. Local number, 23S.2E.31.213.
LOCATION.--Lat 32°16'20", long 106°46'15", Hydrologic Unit 13030102.
Owner: New Mexico State University.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 14 in (0.36 m), reported depth 70 ft (21.3 m), cased to 70 ft (21.3 m).
DATUM.--Altitude of land-surface datum is 3,880 ft (1,183 m). Measuring point: Top of 5/8 in (0.63 cm) hole in pumpbase, 1.08 ft (0.33 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1948, Apr. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 14.13 ft (4.31 m) below land-surface datum, Feb. 10, 1948; lowest measured, 29.12 ft (8.88 m) below land-surface datum, Jan. 7, 1958.
EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 13.16 ft (4.01 m) below land-surface datum, Dec. 3, 1947; lowest, same as for period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Feb. 1	26.03
Aug. 20	25.92

EDDY COUNTY

Roswell Basin

325510104410001. Local number, 16S.23E.15.323.
LOCATION.--Lat 32°55'10", long 104°41'00", Hydrologic Unit 13060007.
Owner: D. W. Runyan.
AQUIFER.--San Andres Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 10 in (0.25 m), depth 1,485 ft (453 m), cased.
DATUM.--Altitude of land-surface datum is 3,900 ft (1,189 m). Measuring point: Top of casing, 0.70 ft (0.21 m) below land-surface datum.
PERIOD OF RECORD.--Jan. 1951-Jan. 1965, Feb. 1970-Aug. 1971, Jan. 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 225.16 ft (68.63 m) below land-surface datum, Jan. 12, 1951; lowest measured, 277.60 ft (84.61 m) below land-surface datum, Aug. 5, 1971.
EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 211.87 ft (64.58 m) below land-surface datum, Mar. 25, 1945; lowest, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 30	271.40
Aug. 14	unable to measure

EDDY COUNTY

Roswell Basin

325735104360701. Local number, 16S.24E.4.23123.
LOCATION.--lat 32°57'35", long 104°36'07", Hydrologic Unit 13060007.
Owner: Ellis Hunlic.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter not available, depth 610 ft (186 m).
DATUM.--Altitude of land-surface datum is 3,623 ft (1,104 m). Measuring point: southwest side of pump, 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--Jan 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 89.04 ft (27.13 m) below land-surface datum Jan. 30, 1979; lowest measured, 100.54 ft (30.64 m) below land-surface datum, Aug. 27, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 30	89.04
Aug. 14	not measured

325712104314501. Local number, 16S.25E.6.313.
LOCATION.--Lat 32°57'12", long 104°31'45", Hydrologic Unit 13060007.
Owner: Frank Childress.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 20 in (0.51 m), depth 39 ft (11.9 m), cased to 39 ft (11.9 m).
DATUM.--Altitude of land-surface datum is 3,600 ft (1,097 m). Measuring point: Top of 20 in (0.51 m) wood cribbing, 0.40 ft (0.12 m) above land-surface datum.
PERIOD OF RECORD.--Sept. 1937-Jan. 1966, Aug. 1968 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.41 ft (7.44 m) below land-surface datum, July 17, 1961; lowest measured, 31.72 ft (9.64 m) below land-surface datum, Aug. 14, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 25	31.71
Aug. 14	not measured

325445104253501. Local number, 16S.26E.19.211.
LOCATION.--Lat 32°54'45', long 104°25'35", Hydrologic Unit 13060007.
Owner: H. V. Parker.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 107 ft (32.6 m) cased to 107 ft (32.6 m).
DATUM.--Land-surface datum is 3,397.9 ft (1,035.7 m) above mean sea level. Measuring point: Hole in top of pump, west side, 0.30 ft (0.09 m) above top of casing (since 1975).
PERIOD OF RECORD.--Jan. 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.34 ft (2.85 m) below land-surface datum, Jan. 15, 1942; lowest measured, 109.00 ft (33.22 m) below land-surface datum, Aug. 31, 1972.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 18	not measured
Aug. 14	not measured

324831104435701. Local number, 17S.23E.30.13244.
LOCATION.--Lat 32°48'31", long 104°43'57", Hydrologic Unit 13060007.
Owner: Village of Hope.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled public-supply artesian well, diameter 16 in (0.41 m), depth 600 ft (183 m), cased to 558 ft (170 m), perforated 498-558 ft (152-170 m).
DATUM.--Altitude of land-surface datum is 4,095 ft (1,248 m). Measuring point: Top of 2 in (0.05 m) pipe extension out of north side of concrete base, 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--Dec. 1968, Jan. 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 544.18 ft (165.43 m) below land-surface datum, Jan. 13, 1977, lowest measured, 553.18 ft (168.61 m) below land-surface datum, Aug. 7, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 30	544.20
Aug. 24	not measured

EDDY COUNTY

Roswell Basin

324930104234501. Local number, 17S.26E.21.112.
LOCATION.--Lat 32°49'30", long 104°23'45", Hydrologic Unit 13060007.
Owner: Western Land Co., Inc.
AQUIFER.--Artesia Group.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 242 ft (73.8 m), cased to 242 ft (73.8 m).
DATUM.--Altitude of land-surface datum is 3,373 ft (1,028 m). Measuring point: 3/4 in (1.9 cm) plug on discharge pipe, 2.00 ft (0.61 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1938-Jan. 1945, Jan. 1947-Aug. 1958, Jan. 1960-Jan. 1963, Jan 1965 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.23 ft (13.18 m) below land-surface datum, Jan. 13, 1955; lowest measured, 106.28 ft (32.39 m) below land-surface datum, Aug. 16, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 23	92.69
Aug. 16	not measured

324615104421001. Local number, 18S.23E.5.333.
LOCATION.--Lat 32°46'15", long 104°42'10", Hydrologic Unit 13060010.
Owner: Joe Clements.
AQUIFER.--San Andres Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled stock water-table well, diameter 6 in (0.15 m), depth 500 ft (152 m), surface casing.
DATUM.--Land-surface datum is 4,007.6 ft (1,221.5 m) above mean sea level. Measuring point: Top of casing, 0.40 ft (0.12 m) above land-surface datum.
PERIOD OF RECORD.--July 1945 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 385.50 ft (117.50 m) below land-surface datum, July 21, 1945; lowest measured, 478.73 ft (145.92 m) below land-surface datum, Jan. 14, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 29	464.80
Aug. 24	not measured

324624104244501. Local number, 18S.26E.6.442a.
LOCATION.--Lat 32°46'24", long 104°24'45", Hydrologic Unit 130600007.
Owner: Pecos Valley Artesian Conservancy District.
AQUIFER.--San Andres Limestone.
WELL CHARACTERISTICS.--Drilled observation artesian well, diameter 9 in (0.23 m), depth 1,008 ft (307 m), cased to 726 ft (221 m).
DATUM.--Land-surface datum is 3402.10 ft (1036.96 m) above mean sea level. Measuring point: Top of recorder shelf, 3.40 ft (1.04 m) above land-surface datum.
REMARKS.--Depth to artesian aquifers 768 ft (234 m), 820 ft (250 m), 889 ft (271 m), and 999 ft (305 m).
PERIOD OF RECORD.--June 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.79 ft (21.88 m) below land-surface datum, Jan. 26, 1962; lowest, 209.15 ft (63.75 m) below land-surface datum, July 31-Aug. 2, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
DAILY HIGHEST WATER LEVEL, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	132.80	115.43	104.54	96.60	89.96	87.14	--	142.41	141.42	164.42	150.95	--
10	127.92	113.39	103.75	95.45	89.25	89.57	--	139.55	139.93	166.95	161.73	186.67
15	124.85	111.63	--	94.33	88.35	92.92	139.21	139.58	141.73	168.03	166.48	--
20	122.80	109.74	--	93.20	87.36	96.94	142.95	135.70	146.41	164.32	160.44	--
25	119.46	107.89	--	91.98	87.18	--	143.75	144.63	150.29	152.40	165.39	--
eom	117.97	106.35	97.65	91.10	87.16	--	142.02	144.33	159.38	152.94	--	--

WTR YEAR 1979 MAX 86.74 Mar. 3, 1979 MIN 186.69 Sept. 11, 1979

324325104233001. Local number, 18S.26E.28.121a.
LOCATION.--Lat 32°43'25", long 104°23'30", Hydrologic Unit 13060011.
Owner: Town of Dayton.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 8 in (0.20 m), depth 250 ft (76.2 m), cased to 182 ft (55.5 m), casing slotted 92-182 ft (28.0-55.5 m).
DATUM.--Altitude of land-surface datum is 3,403 ft (1,037 m). Measuring point: Top of casing, 0.06 ft (0.02 m) above land-surface datum.
PERIOD OF RECORD.--Aug. 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 59.79 ft (18.22 m) below land-surface datum, Feb. 5, 1952; lowest, 119.50 ft (36.42 m) below land-surface datum, Sept. 14, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	118.96	--	118.95	118.99	118.99	119.13	119.21	119.14	119.25	119.36	119.33	119.34
10	118.96	--	119.08	118.99	119.03	119.23	119.07	119.34	119.36	119.30	119.31	119.31
15	118.94	--	118.97	118.99	119.05	119.09	119.21	119.25	119.25	119.39	119.33	119.39
20	118.93	--	119.04	119.02	118.98	119.12	119.26	119.24	119.33	119.37	119.29	119.30
25	118.89	119.01	119.07	118.93	119.11	119.10	119.21	119.23	119.32	119.28	119.30	119.41
eom	--	119.07	119.07	119.08	119.07	119.15	119.17	119.32	119.26	119.30	119.30	119.39

WTR YEAR 1979 MAX 118.76 Dec. 1, 1978 MIN 119.50 Sept. 14, 1979

EDDY COUNTY

Roswell Basin

323540104232001. Local number, 20S.26E.8.112

LOCATION.--Lat 32°35'40", long 104°23'20", Hydrologic Unit 13060011.
Owner: Moutry.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 13 in (0.33 m), depth 364 ft (111 m), casing information not available.
DATUM.--Altitude of land-surface datum is 2,386 ft (1,002 m). Measuring point: Top of basal flange of pump head, 0.20 ft (0.06 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1938 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 25.87 ft (7.89 m) below land-surface datum, Jan. 2, 1943; lowest measured, 100.22 ft (30.46 m) below land-surface datum, Aug. 16, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 23	69.59
Aug. 27	92.64

Carlsbad Area

322640104165801. Local number, 21S.27E.32.112.

LOCATION.--Lat 32°26'40", long 104°16'58", Hydrologic Unit 13060011.
Owner: L. E. Loman.
AQUIFER.--Capitan Limestone of Permian Age.
WELL CHARACTERISTICS.--Drilled domestic and irrigation artesian well, diameter 12 in (0.30 m), reported depth 305 ft (93 m).
DATUM.--Altitude of land-surface datum is 3,112 ft (949 m). Measuring point: Top of casing, 0.40 ft (0.12 m) above land-surface datum.
PERIOD OF RECORD.--Oct. 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 4.64 ft (1.41 m) below land-surface datum, Jan. 17, 1950; lowest measured, 17.35 ft (5.29 m) below land-surface datum, Aug. 9, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 22	10.71
Aug. 29	11.69

322120104151501. Local number, 22S.26E.36.111a.

LOCATION.--Lat 32°21'20", long 104°15'15", Hydrologic Unit 13060011.
Owner: Carlsbad Airfield.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 12 in (0.30 m), depth 260 ft (79.3 m), cased to 260 ft (79.3 m).
DATUM.--Altitude of land-surface datum is 3,225 ft (983 m). Measuring point: Top of recorder platform, 2.70 ft (0.83 m) above land-surface datum.
PERIOD OF RECORD.--July 1942 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 131.50 ft (40.08 m) below land-surface datum, Oct. 14, 1942; lowest, 214.82 ft (65.47 m) below land-surface datum, Sept. 15, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	200.70	196.85	191.04	189.92	187.60	186.43	188.98	195.20	197.60	198.51	--	198.59
10	200.70	196.30	189.97	189.58	187.39	186.49	190.14	195.55	197.51	198.84	--	198.40
15	200.60	195.49	190.93	189.10	186.98	186.60	191.51	196.12	197.49	199.15	--	198.53
20	199.35	194.93	190.71	188.72	186.69	186.80	192.81	196.46	197.64	199.74	--	198.41
25	199.61	194.11	190.48	188.11	186.54	187.30	194.08	197.21	197.96	199.91	--	198.39
eom	199.30	193.68	190.15	187.99	186.34	187.36	193.31	197.71	198.21	199.81	198.89	198.04

WTR YEAR 1979 MAX 186.21 Mar. 2, 1979 MIN 200.80 Oct. 6, 1978

322231104131001. Local number, 22S.27E.22.421.

LOCATION.--Lat 32°22'31", long 104°31'10", Hydrologic Unit 13060011.
Owner: Enea Grandi.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 150 ft (45.7 m), cased.
DATUM.--Altitude of land-surface datum is 3,100 ft (945 m). Measuring point: Top of casing, 1.20 ft (0.37 m) above land-surface datum.
PERIOD OF RECORD.--Sept. 1947-Aug. 1968, Jan. 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.43 ft (6.53 m) below land-surface datum, Sept. 15, 1950; lowest measured, 81.10 ft (24.65 m) below land-surface datum, Aug. 8, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 17	67.33
Aug. 29	62.87

Carlsbad Area

321740104035501. Local number, 23S.27E.9.211.
LOCATION.--Lat 32°17'40", long 104°03'55", Hydrologic Unit 13060011.
Owner: J. A. Cox.
AQUIFER.-- Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 200 ft (60.9 m).
DATUM.--Altitude of land-surface datum is 3,150 ft (960 m). Measuring point: Top of casing, under pump base, 1.25 ft (0.41 m) above land-surface datum.
PERIOD OF RECORD.--July 1949-Nov. 1955, Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 41.70 ft (12.71 m) below land-surface datum, Sept. 15, 1950; lowest measured, 57.47 ft (17.51 m) below land-surface datum, Aug. 29, 1979.
EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, same as period of record; lowest measured, 68.22 ft (20.79 m) below land-surface datum, Jan. 28, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 17	63.01
Aug. 29	57.47

321740104035501. Local number, 23S.28E.23.133.
LOCATION.--Lat 32°17'40", long 104°03'55", Hydrologic Unit 13060011.
Owner: A. R. Donaldson.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 148 ft (45.1 m), cased.
DATUM.--Altitude of land-surface datum is 3,020 ft (921 m). Measuring point: Bottom edge of north 1/2 in (1.27 cm) hole in west side of pump base, 0.80 ft (0.24 m) above land-surface datum.
PERIOD OF RECORD.--Sept. 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 38.25 ft (11.66 m) below land-surface datum, Sept. 14, 1950; lowest measured, 93.62 ft (28.46 m) below land-surface datum, Aug. 8, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 18	61.54
Aug. 29	60.04

320602104285201. Local number, 25S.24E.27.421.
LOCATION.--Lat 32°06'02", long 104°28'52", Hydrologic Unit 13060011.
Owner: Walker Hood.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 101 ft (31 m), uncased.
DATUM.--Altitude of land-surface datum is 3,701 ft (1,128 m). Measuring point: Northwest corner of pumpbase, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1952-Aug. 1967, Jan. 1969 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 55.22 ft (16.83 m) below land-surface datum, Sept. 21, 1966; lowest measured, 85.10 ft (25.93 m) below land-surface datum, Aug. 25, 1967.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 24	56.13
Aug. 28	62.30

320257104295201. Local number, 26S.24E.9.441.
LOCATION.--Lat 32°02'57", long 104°29'52", Hydrologic Unit 13060011.
Owner: John Mayes.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 100 ft (30.5 m), cased to 85 ft (25.9 m).
DATUM.--Land-surface datum is 3,749.4 ft (1,142.8 m) above mean sea level. Measuring point: Top of air-line flange support, 1.40 ft (0.43 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.05 ft (12.81 m) below land-surface datum, Jan. 24, 1979; lowest measured, 54.98 ft (16.76 m) below land-surface datum, Sept. 8, 1965.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 24	42.05
Aug. 28	42.95

HARDING COUNTY

360340104085001. Local number, 21N.26E.3.4443.

LOCATION.--Lat 36°03'40", long 104°08'50", Hydrologic Unit 11080007.
Owner: Unknown.

AQUIFER.--Ogallala Formation.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 5 in (0.13 m), depth 120 ft (36.3 m), cased to 120 ft (36.3 m).

DATUM.--Altitude of land-surface datum is 5,870 ft (1,777 m). Measuring point: Top of 5 in (0.13 m) galvanized casing, 0.30 ft (0.09 m) above land-surface datum on east side.

PERIOD OF RECORD.--1976.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.92 ft (25.27 m) below land-surface datum, Jan. 28, 1976; lowest measured, 83.19 ft (25.35 m) below land-surface datum, Jan. 24, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 82.16 ft (24.88 m) below land-surface datum, June 10, 1969; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 24	83.19
July 25	83.28

HIDALGO COUNTY

Virden Valley

324053108594101. Local number, 19S.21W.3.414.

LOCATION--Lat 32°40'53", long 108°59'41", Hydrologic Unit 15040002.
Owner: Jones, Clouse, Jensen.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 20 in (0.51 m), depth 72 ft (22.0 m).

DATUM.--Altitude of land-surface datum is 3,750 ft (1,143 m). Measuring point: Hole inside pumpshell, 0.90 ft (0.27 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.27 ft (2.82 m) below land-surface datum, Jan. 12, 1979; lowest measured, 14.54 ft (4.43 m) below land-surface datum, Sept. 12, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 12	9.27
Aug. 8	10.66

Animas Valley

320700108515001. Local number, 25S.20W.24.313.

LOCATION.--Lat 32°07'00", long 108°51'50", Hydrologic Unit 15040003.
Owner: Rudiger and Jundt.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 358 ft (109 m), cased to 320 ft (97.5 m).

DATUM.--Land-surface datum is 4,221.43 ft (1,286.69 m) above mean sea level. Measuring point: Top of casing, 0.43 ft (0.13 m) above land-surface datum.

PERIOD OF RECORD.--Apr. 1948 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 42.43 ft (12.93 m) below land-surface datum, Apr. 1, 1948; lowest measured, 118.23 ft (36.03 m) below land-surface datum, Aug. 22, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 3	not measured
Aug. 22	118.23

315645108493501. Local number, 27S.19W.20.343.

LOCATION.--Lat 31°56'45", long 108°49'35", Hydrologic Unit 15040003.
Owner: Felix Gauthier.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table table well, diameter 16 in (0.41 m), depth 358 ft (109 m), cased to 358 ft (109 m).

DATUM.--Altitude of land-surface datum is 4,420 ft (1,347 m). Measuring point: Top edge of 1 1/4 in (3.16 cm) pipe in concrete pump base, 1.25 ft (0.38 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1950 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 132.12 ft (40.27 m) below land-surface datum, Jan. 19, 1950; lowest measured, 198.50 ft (60.34 m) below land-surface datum, Aug. 1, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 131.90 ft (40.20 m) below land-surface datum, July 29, 1949; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 5	174.63
Aug. 22	187.35

San Simon Creek Valley

315010108570001. Local number, 28S.21W.30.222.

LOCATION.--Lat 31°50'10", long 108°57'00", Hydrologic Unit 15040006.
Owner: C. L. Johnston.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 8 in (0.20 m), depth 471 ft (143 m), cased to 471 ft (143 m).

DATUM.--Altitude of land-surface datum is 4,440 ft (1,355 m). Measuring point: Hole in west side of casing, 0.70 ft (0.21 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 112.62 ft (34.33 m) below land-surface datum, Jan. 19, 1971; lowest measured, 122.94 ft (37.37 m) below land-surface datum, Aug. 4, 1978.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 110.88 ft (33.80 m) below land-surface datum, Jan. 15, 1969; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 13	121.53
Aug. 9	pumping

Playas Valley

313502108275001. Local number, 31S.16W.33.233.

LOCATION.--Lat 31°35'02", long 108°27'50", Hydrologic Unit 13030201.
Owner: U-Bar Ranch.

AQUIFER.--Bolson deposits.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 16 in (0.41 m), depth 654 ft (199 m), 16 in (0.41 m) casing.

DATUM.--Altitude of land-surface datum is 4,400 ft (1,341 m). Measuring point: Bottom edge of shelf, 4.05 ft (1.23 m) above land-surface datum.

PERIOD OF RECORD.--Jan. 1971 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level, 44.66 ft (13.61 m) below land-surface datum, Apr. 18-20, and 30, 1973; lowest, 54.95 ft (16.74 m) below land-surface datum, Sept. 4, 1976.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level, same as period of record; lowest, 79.37 ft (24.19 m) below land-surface datum, Sept. 3-4, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	50.66	50.69	50.72	50.77	50.80	50.86	50.89	50.89	50.83	50.89	50.89	--
10	50.67	50.70	50.74	50.78	50.84	50.86	50.81	50.88	50.90	50.88	50.89	--
15	50.67	50.71	50.74	50.80	50.82	50.87	50.88	50.89	50.87	50.89	50.89	--
20	50.69	50.73	50.74	50.79	50.83	50.85	50.89	50.86	50.89	50.89	50.89	--
25	50.67	50.72	50.75	50.74	50.86	50.86	50.88	50.87	50.88	50.89	--	--
eom	50.72	50.74	50.76	50.81	50.82	50.88	50.88	50.87	50.89	50.89	--	--

WTR YEAR 1979 MAX 50.65 Oct. 1, 1978 MIN 50.90 June 26, 1979

LEA COUNTY

Tatum-Lovington-Hobbe Area

331740103285001. Local number, 12S.34E.11.413.

LOCATION.--Lat 33°17'40", long 103°28'50", Hydrologic Unit 12080006.
Owner: A. D. Jones.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 15 in (0.38 m), depth 87 ft (26.5 m).

DATUM.--Altitude of land-surface datum is 4,150 ft (1,265 m). Measuring point: Top of concrete pump base, 0.80 ft (0.24 m) above land-surface datum.

PERIOD OF RECORD.--May 1949 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 29.57 ft (9.01 m) below land-surface datum, May 24, 1949; lowest measured, 34.03 ft (10.34 m) below land-surface datum, Aug. 9, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 3	33.87
July 25	33.64

330325103245501. Local number, 14S.35E.33.433.

LOCATION.--Lat 33°03'25", long 103°24'55", Hydrologic Unit 12080003.
Owner: W. A. Anderson.

AQUIFER.--Ogallala Formation of Pliocene Age.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 6 in (0.15 m), depth 62 ft (18.9 m), not cased.

DATUM.--Land-surface datum is 4,013.61 ft (1,223.35 m) above mean sea level. Measuring point: Top of concrete collar on well, 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--Nov. 1929 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 39.65 ft (12.09 m) below land-surface datum, May 21, July 25, 1951 and Jan. 9, May 24, 1952; lowest measured, 46.84 ft (14.28 m) below land-surface datum, Aug. 13, 1974.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 4	45.50
July 25	45.46

LEA COUNTY

Tatum-Lovington-Hobbs Area

330400103193401. Local number, 14S.36E.32.121.
LOCATION.--Lat 33°04'00", long 103°19'34", Hydrologic Unit 12080003.
Owner: E. T. Howell.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth and casing information not available.
DATUM.--Altitude of land-surface datum is 3,990 ft (1,216 m). Measuring point: Top of concrete pump base, 0.50 ft (0.15 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1949-Jan. 1950, Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 53.38 ft (15.9 m) below land-surface datum, Jan. 19, 1949, lowest measured, 70.07 ft (21.36 m) below land-surface datum, Jan. 14, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 4	67.08
July 25	66.76

325703103213201. Local number, 16S.36E.4.322.
LOCATION.--Lat 32°57'03", long 103°21'32", Hydrologic Unit 12080003.
Owner: City of Lovington.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 13 in (0.33 m), depth 212 ft (64.6 m), perforated 80-208 ft (24.4-63.4 m).
DATUM.--Altitude of land-surface datum is 3,926 ft (1,197 m). Measuring point: Top of shelf, 4.00 ft (1.22 m) above land-surface datum.
PERIOD OF RECORD.--Aug. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.00 ft (19.81 m) below land-surface datum, Dec. 14, 16, and 24, 1973; lowest measured, 67.11 ft (20.46 m) below land-surface datum, Aug. 24, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	--	65.91	65.75	65.67	65.59	65.53	65.48	65.40	65.46	65.56	65.69	65.73
10	--	65.88	65.79	65.66	65.59	65.53	65.40	65.43	65.51	65.58	65.70	65.73
15	--	65.90	65.73	65.66	65.56	65.51	65.46	65.43	65.49	65.61	65.71	65.76
20	66.00	65.88	65.73	65.64	65.54	65.49	65.44	65.40	65.52	65.64	65.72	65.74
25	65.99	65.81	65.71	65.61	65.55	65.47	65.41	65.42	65.52	65.64	65.72	--
eom	66.00	65.80	65.71	65.63	65.52	65.46	65.41	65.45	65.53	65.67	65.72	--

WTR YEAR 1979 MAX 65.39 May 1, 1979 MIN 66.01 Oct. 18, 1978

325658103200001. Local number, 16S.37E.11.111.
LOCATION.--Lat 32°56'58", long 103°20'00", Hydrologic Unit 12080003.
Owner: H. J. Taylor.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 118 ft (36.0 m).
DATUM.--Altitude of land-surface datum is 3,900 ft (1,189 m). Measuring point: Top of 1 in (2.54 cm) hole in southwest side of pump, 1.34 ft (0.41 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 31.93 ft (9.73 m) below land-surface datum, Jan. 23, 1949; lowest measured, 78.64 ft (23.96 m) below land-surface datum, Jan. 3, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 3	78.64
July 25	well being pumped

324947103371001. Local number, 17S.33E.13.341.
LOCATION.--Lat 32°49'47", long 103°37'10", Hydrologic Unit 12080003.
Owner: Potash Co. of America.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 6 in (0.15 m), depth 252 ft (76.8 m), cased to 252 ft (76.8 m).
DATUM.--Altitude of land-surface datum is 4,124 ft (1,257 m). Measuring point: Top of casing, 1.10 ft. (0.34 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 146.00 ft (44.50 m) below land-surface datum, Jan. 21, 1953; lowest measured, 172.51 ft (52.58 m) below land-surface datum, Aug. 30, 1979.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	170.90	171.11	170.80	171.05	171.30	171.68	171.80	171.87	172.16	172.16	172.41	172.41
10	170.94	171.11	170.75	171.12	171.30	171.76	171.77	172.09	172.23	172.12	172.40	172.36
15	171.05	171.07	170.65	171.12	171.41	171.75	172.00	172.17	172.09	172.18	172.40	172.24
20	170.94	170.88	170.73	171.17	171.37	171.71	171.92	172.10	172.22	172.18	172.44	172.13
25	170.96	170.77	170.92	171.24	171.57	171.72	171.90	172.19	172.18	172.26	172.46	172.20
eom	171.13	170.80	171.08	171.28	171.59	171.75	171.95	172.16	172.23	172.31	172.42	172.18

WTR YEAR 1979 MAX 170.88 Oct. 1, 1978 MIN 172.51 Aug. 30, 1979

LEA COUNTY

Tatum-Lovington-Hobbs Area

325132103112501. Local number, 17S.38E.7.111a.
LOCATION.--Lat 32°51'32", long 103°11'25", Hydrologic Unit 12080003.
Owner: L. R. Sebings.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 125 ft (38.1 m), cased.
DATUM.--Altitude of land-surface datum is 3,740 ft (1,140 m). Measuring point: Edge of small pipe projecting from west side of pump, 0.96 ft (0.29 m) above concrete pump base, and 1.91 ft (0.58 m) above land-surface datum (since 1971).
PERIOD OF RECORD.--July 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 35.59 ft (10.85 m) below land-surface datum, Mar. 21, 1952; lowest measured, 72.99 ft (22.24 m) below land-surface datum, July 25, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 3	68.36
July 25	72.99

324745103082001. Local number, 17S.38E.34.113.
LOCATION.--Lat 32°47'45", long 103°08'20", Hydrologic Unit 12080003.
Owner: W. E. Busby.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), depth 125 ft (38.1 m), cased to 90 ft (27.4 m).
DATUM.--Altitude of land-surface datum is 3,660 ft (1,116 m). Measuring point: Top of 1/2 in (1.3 cm) hole in pump base, 0.54 ft (0.16 m) above land-surface datum.
PERIOD OF RECORD.--Nov. 1943 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 24.78 ft (7.55 m) below land-surface datum, Jan. 15, 1944; lowest measured, 55.23 ft (16.83 m) below land-surface datum, July 25, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 3	54.62
July 25	55.23

LINCOLN COUNTY

Hondo Valley

333015105382201. Local number, 9S.13E.25.113.
LOCATION.--Lat 33°30'15", long 105°38'22", Hydrologic Unit 13060008, 0.4 mi (0.6 km) southwest of intersection of Magado Creek and State Highway 48.
Owner: M.W. Coll.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation and domestic water-table well, diameter 8 in (0.20 m), depth 90 ft (27.4 m), cased to 40 ft (12.1 m).
DATUM.--Altitude of land-surface datum is 6,750 ft (2,057 m). Measuring point: Top of casing, at land-surface datum.
PERIOD OF RECORD.--Dec. 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 18.04 ft (5.05 m) below land-surface datum, Nov. 25, 1958; lowest measured, 44.36 ft (13.52 m) below land-surface datum, Aug. 13, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Feb.	not measured
Aug. 30	no access

333242105340701. Local number, 9S.14E.10.132.
LOCATION.--Lat 33°32'42", long 105°34'07", Hydrologic Unit 13060008, east end of Village on south side of Highway U.S. 380.
Owner: Village of Capitan.
AQUIFER.--Mancos Shale of Late Cretaceous Age.
WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 8 in (0.20 m), depth 324 ft (98.8 m), cased to 271 ft (82.6 m).
DATUM.--Altitude of land-surface datum is 6,340 ft (1,932 m). Measuring point: Top of breather hole on west side of pump base, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--June 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 37.34 ft (11.38 m) below land-surface datum, Aug. 30, 1979; lowest measured, 69.77 ft (21.27 m) below land-surface datum, Nov. 28, 1956.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 17	37.84
Aug. 30	37.34

LINCOLN COUNTY

Hondo Valley

332145105333001. Local number, 11S.14E.15.431.
LOCATION.--Lat 33°21'45", long 105°33'30", Hydrologic Unit 13060008, 0.1 mi (0.16 km) west of Valley View Motel.
Owner: E. H. Fuchs.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 8 in (0.20 m), depth 90 ft (27.4 m), casing information not available.
DATUM.--Altitude of land-surface datum is 6,200 ft (1,890 m). Measuring point: Top of east edge of 8 in (0.20 m) casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--July 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.16 ft (17.42 m) below land-surface datum, Mar. 26, 1958; lowest measured, 63.75 ft (19.43 m) below land-surface datum, Aug. 10, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 17	58.51
Aug. 29	57.48

332157105094101. Local number, 11S.18E.16.444.
LOCATION.--Lat 33°21'57", long 105°09'41", Hydrologic Unit 1306008, 0.4 mi (0.6 km) south of Picacho Bridge on east of Casey Canyon Road.
Owner: Lincoln County Limestock Co.
AQUIFER.--Yeso Formation of Permian Age.
WELL CHARACTERISTICS.--Drilled domestic and stock water-table well, diameter 12 in (0.30 m), depth 125 ft (38.1 m), cased to 110 ft (33.5 m).
DATUM.--Altitude of land-surface datum is 5,010 ft (1,526 m). Measuring point: Top of casing, 0.5 ft (0.15 m) above land-surface datum.
PERIOD OF RECORD.--Oct. 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 45.02 ft (13.68 m) below land-surface datum, Jan. 25, 1977; lowest measured, 60.18 ft (18.34 m) below land-surface datum, Jan. 15, 1959.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 17	51.15
Aug. 30	51.01

LUNA COUNTY

Mimbres Valley

323110107235001. Local number, 20S.5W.31.334.
LOCATION.--Lat 32°31'10", long 107°23'50", Hydrologic Unit 13030202.
Owner: Leonard Farms (formerly Jack Carter).
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 421 ft (128 m), perforated 221-421 ft (67-128 m).
DATUM.--Altitude of land-surface datum is 4,486.6 ft (1,367.5 m). Measuring point: 1/2 in (1.3 cm) pipe west side of pumpbase, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1959 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 54.69 ft (16.67 m) below land-surface datum, Jan. 19, 1959; lowest measured, 100.46 ft (30.62 m) below land-surface datum, Sept. 8, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan.	no access
Aug.	no access

322930107221001. Local number, 21S.5W.8.444.
LOCATION.--Lat 32°29'30", long 107°22'10", Hydrologic Unit 13030202.
Owner: Leonard Farms (formerly Jack Carter).
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 435 ft (133 m), cased to 435 ft (133 m).
DATUM.--Altitude of land-surface datum is 4,530 ft (1,381 m). Measuring point: Hole in NE side of pump shell, 1.60 ft (0.49 m) above land-surface datum.
PERIOD OF RECORD.--Nov. 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 102.06 ft (31.11 m) below land-surface datum, Jan. 17, 1962; lowest measured, 164.25 ft (50.06 m) below land-surface datum, Aug. 20, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Feb. 1	158.05
Aug. 20	164.25

LUNA COUNTY

Mimbres Valley

321352107493901. Local number, 24S.10W.12.431.
LOCATION.--Lat 32°13'52", long 107°49'39", Hydrologic Unit 13030202.
Owner: Steve Hrna.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Dug and drilled unused water-table well, diameter 36 in (0.91 m), reported depth 132 ft (40.2 m), cased.
DATUM.--Altitude of land-surface datum is 4,330 ft (1,319 m). Measuring point: Top of recorder shelter shelf, 1.36 ft (0.42 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1939 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 71.61 ft (23.66 m) below land-surface datum, May 6-13, 1940; lowest, 113.30 ft (34.53 m) below land-surface datum, Aug. 12 and 20, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	104.13	102.72	--	102.36	103.10	103.75	105.21	106.19	106.79	--	--	107.67
10	103.51	102.72	--	102.44	103.28	103.81	105.03	106.22	107.05	--	--	107.62
15	102.90	102.72	--	102.71	103.29	103.95	105.50	106.51	106.76	--	--	107.85
20	102.64	102.72	--	102.84	103.40	104.19	105.67	106.53	106.83	--	--	107.56
25	102.72	102.72	102.30	102.67	103.64	104.51	105.70	106.67	--	--	107.72	107.68
eom	102.72	102.72	102.30	103.12	103.51	104.96	105.93	106.74	--	--	107.62	107.57

WTR YEAR 1979 MAX 102.30 Dec. 26, 1978 MIN 107.77 Aug. 23, 1979

321415107565501. Local number 24S.11W.14.122.
LOCATION.--Lat 32°14'15", long 107°56'55", Hydrologic Unit 13030202.
Owner: Charles Waldrop.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.30 m), reported depth 210 ft (64.0 m), cased to 198 ft (60.4 m).
DATUM.--Altitude of land-surface datum is 4,405 ft (1,343 m). Measuring point: Top of 1 in (2.54 cm) hole in pump base, 0.80 ft (0.24 m) above land-surface datum.
PERIOD OF RECORD.--July 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 107.66 ft (32.82 m) below land-surface datum, Jan. 23, 1952; lowest measured, 228.00 ft (69.31 m) below land-surface datum, May 11, 1956.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 15	183.35
Aug. 21	191.35

321015107260501. Local number, 25S.6W.2.111.
LOCATION.--Lat 32°10'15", long 107°26'05", Hydrologic Unit 13030202.
Owner: C. W. Johnson, Jr.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation artesian well, diameter 16 in (0.41 m), depth 235 ft (71.6 m), perforated 180-235 ft (54.9-71.6 m), gravel packed.
DATUM.--Altitude of land-surface datum is 4,220 ft (1,282 m). Measuring point: Top of casing, 1.30 ft (0.40 m) above land-surface datum.
PERIOD OF RECORD.--May 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 0.45 ft (0.14 m) below land-surface datum, Mar. 14, 1953; lowest measured, 110.79 ft (33.76 m) below land-surface datum, Aug. 21, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 16	54.08
Aug. 21	110.79

320915104294501. Local number, 25S.6W.7.211.
LOCATION.--Lat 32°09'15", long 104°29'45", Hydrologic Unit 13030202.
Owner: H. C. Telles.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 230 ft (70.1 m), cased to 230 ft (70.1 m).
DATUM.--Land-surface datum is 4,084.22 ft (1,244.87 m) above mean sea level. Measuring point: MP hole in pump base, 1.20 ft (0.37 m) above land-surface datum (since Jan. 15, 1966).
PERIOD OF RECORD.--Jan. 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.34 ft (19.92 m) below land-surface datum, Mar. 14, 1953; lowest measured, 122.16 ft (37.23 m) below land-surface datum, Aug. 13, 1970.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 16	89.55
Aug. 21	90.32

LUNA COUNTY

Mimbres Valley

315525107374501. Local number, 27S.8W.35.122.
LOCATION.--Lat 31°55'25", long 107°37'45", Hydrologic Unit 13030202.
Owner: M. M. Gibson.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 12 in (0.30 m) to 8 in (0.20 m), depth 550 ft (168 m), cased to 550 ft (168 m), perforated 155-550 ft (47-168 m).
DATUM.--Altitude of land-surface datum is 4,070 ft (1,241 m). Measuring point: Top of casing, 0.20 ft (0.06 m) above land-surface datum.
PERIOD OF RECORD.--July 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 20.84 ft (6.35 m) below land-surface datum, Mar. 16, 1953; lowest measured, 116.82 ft (35.60 m) below land-surface datum, Aug. 21, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 10	89.60
Aug. 21	116.82

315905107425001. Local number, 27S.9W.1.431.
LOCATION.--Lat 31°59'05", long 107°42'50", Hydrologic Unit 13030202.
Owner: I. G. Burns.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 62 ft (18.9 m), cased to 62 ft (18.9 m).
DATUM.--Altitude of land-surface datum is 4,135 ft (1,260 m). Measuring point: Top edge of rectangular hole in pump base, 0.65 ft (0.20 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1954 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 30.61 ft (9.33 m) below land-surface datum, Jan. 19, 1954; lowest measured, 47.26 ft (14.36 m) below land-surface datum, Aug. 11, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan.	no access
Aug.	no access

314938107371401. Local number, 28S.8W.36.411.
LOCATION.--Lat 31°49'38", long 107°37'14", Hydrologic Unit 13030202.
Owner: M. R. Hemley.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 250 ft (76.2 m), cased to 250 ft (76.2 m).
DATUM.--Altitude of land-surface datum is 4,008 ft (1,222 m). Measuring point: Top of casing, 1.85 ft (0.56 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1961 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 10.29 ft (3.13 m) below land-surface datum, Aug. 21, 1979; lowest measured, 27.85 ft (8.49 m) below land-surface datum, Jan. 14, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 9	11.44
Aug. 21	10.29

MORA COUNTY

354840104590301. Local number, 18N.18E.1.333.
LOCATION.--Lat 35°48'40", long 104°59'03", Hydrologic Unit 11080004.
Owner: Sellman Bros.
AQUIFER.--Alluvium.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 14 in (0.36 m), depth 100 ft (30.5 m), cased.
DATUM.--Altitude of land-surface datum is 6,420 ft (1,944 m). Measuring point: Hole in southeast corner of pump base, 2.00 ft (0.64 m) above land-surface datum.
PERIOD OF RECORD.--1976.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 3.23 ft (0.98 m) below land-surface datum, July 25, 1979; lowest measured, 5.97 ft (1.82 m) below land-surface datum, Aug. 23, 1976.
EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 4.40 ft (1.33 m) below land-surface datum Mar. 25, 1969; lowest measured, 6.86 ft (2.09 m) below land-surface datum, Aug. 22, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 22	5.91
July 25	3.23

OTERO COUNTY

Tularosa-Alamogordo Area

330324106011201. Local number, 14S.10E.31.144.
LOCATION.--Lat 33°03'24", long 106°01'12", Hydrologic Unit 13050003.
Owner: Luther Watson.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 17 in (0.43 m), depth 230 ft (70.1 m), 16 in (0.41 m) to 14 in (0.36 m) casing 0-130 ft (0-39 m).
DATUM.--Altitude of land-surface datum is 4,450 ft (1,356 m). Measuring point: Top edge of 1 in (2.54 cm) hole in pump base, 0.70 ft (0.21 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1952 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 73.75 ft (22.48 m) below land-surface datum, Apr. 8, 1952; lowest measured, 134.21 ft (40.79 m) below land-surface datum, Aug. 3, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Feb. 8	120.40
July 20	133.92

324853105582501. Local number, 17S.9E.24.343.
LOCATION.--Lat 32°48'53", long 105°58'25", Hydrologic Unit 13050003.
Owner: U.S. Air Force.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled public supply water-table well, diameter 10 in (0.25 m), depth 236 ft (71.9 m), cased to 236 ft (71.9 m).
DATUM.--Altitude of land-surface datum is 4,144 ft (1,263 m). Measuring point: Top of 1 1/2 in (3.8 cm) pipe with screw plug on south side of concrete base, 2.10 ft (0.64 m) above land-surface datum.
PERIOD OF RECORD.--Apr. 1955 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 61.42 ft (18.72 m) below land-surface datum, Apr. 6, 1960; lowest measured, 84.16 ft (25.65 m) below land-surface datum, July 20, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Feb. 8	72.35
July 20	84.16

Crow Flats Basin

(Salt Basin)

320650105034801. Local number, 26S.18E.21.331.
LOCATION.--Lat 32°06'50", long 105°03'48", Hydrologic Unit 13050004.
Owner: Frank Gentry.
AQUIFER.--Bolson deposits.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), depth 544 ft (165 m).
DATUM.--Altitude of land-surface datum is 4,000 ft (1,216 m). Measuring point: Top of casing, 2.50 ft (0.75 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.08 ft (15.57 m) below land-surface datum, Jan. 8, 1973, lowest measured, 82.94 ft (25.21 m) below land-surface datum, Aug. 17, 1978.
EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 33.64 ft (10.65 m) below land-surface datum, Jan. 15, 1957; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 24	57.30
Aug. 28	71.69

QUAY COUNTY

House Area

343810103463001. Local number, 5N.30E.18.331.
LOCATION.--Lat 34°38'10", long 103°46'30", Hydrologic Unit 13060004.
Owner: W. C. and H. J. Lee.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 75 ft (22.9 m), cased to 60 ft (18.3 m).
DATUM.--Altitude of land-surface datum is 4,640 ft (1,414 m). Measuring point: Top of concrete pump base, 0.50 ft (0.15 m) above land-surface datum.
PERIOD OF RECORD.--May 1944 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 34.76 ft (10.60 m) below land-surface datum, Mar. 28, 1946; lowest measured, 51.49 ft (15.69 m) below land-surface datum, Aug. 11, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 7	46.04
July 23	44.18

QUAY COUNTY

House Area

344350103553001. Local number, 6N.28E.24.233.
LOCATION.--Lat 34°43'50", long 103°55'30", Hydrologic Unit 13060004.
Owner: G. B. Irwin.
AQUIFER.--Ogallala Formation of Pliocene Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 131 ft (39.9 m), cased to 131 ft (39.9 m).
DATUM.--Altitude of land-surface datum is 4,790 ft (1,460 m). Measuring point: Top of 2 in (5 cm) opening in concrete base, 1.21 ft (0.37 m) above land-surface datum.
PERIOD OF RECORD.--Mar. 1944 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 77.97 ft (23.77 m) below land-surface datum, Mar. 27, 1944; lowest measured, 113.50 ft (34.60 m) below land-surface datum, Aug. 20, 1971.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 7	100.21
July 23	96.69

ROOSEVELT COUNTY

Portales Valley

341400103353701. Local number, 1S.32E.16.112.
LOCATION.--Lat 34°14'00", long 103°35'37", Hydrologic Unit 12050001.
Owner: Dorsey Nash.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 16 in (0.41 m), depth unknown, surface casing.
DATUM.--Altitude of land-surface datum is 4,010 ft (1,249 m). Measuring point: Edge of center hole in old car wheel, 0.30 ft (0.10 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 80.75 ft (24.61 m) below land-surface datum, Jan. 6, 1971; lowest measured, 87.28 ft (26.60 m) below land-surface datum, July 24, 1979.
EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 66.78 ft (20.35 m) below land-surface datum, Jan. 17, 1961; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 8	86.32
July 24	87.28

341530103292001. Local number, 1S.33E.4.1121.
LOCATION.--Lat 34°15'30", long 103°29'20", Hydrologic Unit 12050001.
Owner: Unknown.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 12 in (0.30 m), depth unknown.
DATUM.--Altitude of land-surface datum is 4,109 ft (1,252 m). Measuring point: Top of casing level with 4 ft x 4 ft (1 m x 1 m) concrete base, 1.00 (0.30 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 79.07 ft (24.10 m) below land-surface datum, Jan. 8, 1973; lowest measured, 86.08 ft (26.14 m) below land-surface datum, Aug. 16, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 6	82.10
July 24	pumping

340740103145501. Local number, 2S.35E.23.111.
LOCATION.--Lat 34°07'40", long 103°14'55", Hydrologic Unit 12050001.
Owner: P. O. Dozier.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well diameter, depth and casing information not available.
DATUM.--Altitude of land-surface datum is 3,963 ft (1,208 m). Measuring point: Top of concrete pump base, 1.50 ft (0.46 m) above land-surface datum.
PERIOD OF RECORD.--Jan 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 21.32 ft (6.50 m) below land-surface datum, Mar. 27, 1951; lowest measured, 49.26 ft (15.01 m) below land-surface datum, Aug. 11, 1969.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 5	43.50
July 24	44.59

ROOSEVELT COUNTY

Causey-Lingo Area

335655103032001. Local number, 6S.38E.21.233.
LOCATION.--Lat 33°56'55", long 103°03'20", Hydrologic Unit 12050001.
Owner: C. C. Harvey.
AQUIFER.--Undifferentiated Cretaceous rocks.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 140 ft (42.7 m), cased to 140 ft (42.7 m), casing slotted 100-140 ft (30.5-42.7 m).
DATUM.--Altitude of land-surface datum is 3,927 ft (1,197 m). Measuring point: Top of 1 in (2.54 cm) hole in north side of pump, 2.10 ft (0.64 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1956 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 87.18 ft (26.57 m) below land-surface datum, Jan. 13, 1956; lowest measured, 115.21 ft (35.12 m) below land-surface datum, Aug. 11, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 5	96.30
July 24	96.45

SANDOVAL COUNTY

352235106282401. Local number, 13N.4E.12.112.
LOCATION.--Lat 35°22'35", long 106°28'24", Hydrologic Unit 13020201.
Owner: John Bowers.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 12 in (0.31 m), depth 50 ft (15.2 m), cased.
DATUM.--Altitude of land-surface datum is 5,130 ft (1,553 m). Measuring point: Top of casing, 0.50 ft (0.15 m) above land-surface datum.
PERIOD OF RECORD.--1976
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 22.04 ft (6.70 m) below land-surface datum, Aug. 17, 1978; lowest, 25.94 ft (7.89 m) below land-surface datum, Jan. 17, 1977.

WATER YEAR, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 16	23.78
July 18	23.13

SANTA FE COUNTY

Estancia Valley

350525106025001. Local number, 10N.8E.13.133.
LOCATION.--Lat 35°05'25", long 106°02'50", Hydrologic Unit 13050001.
Owner: W. R. Irby.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter unknown, reported depth 513 ft (156 m), casing information not available.
DATUM.--Altitude of land-surface datum is 6,265 ft (1,910 m). Measuring point: Lower inside edge of hole in south side of casing, 0.45 ft (0.14 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 86.75 ft (26.44 m) below land-surface datum, Feb. 22, 1950; lowest measured, 143.98 ft (43.76 m) below land-surface datum, Aug. 21, 1978.

WATER YEAR, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 17	127.48
Sept. 20	139.29

SANTA FE COUNTY

Estancia Valley

350340106005001. Local number, 10N.9E.29.130.
LOCATION.--Lat 35°03'40", long 106°00'50", Hydrologic Unit 13050001.
Owner: Glen Terry.
AQUIFER.--Glorieta Sandstone of Permian Age.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 14 in (0.36 m), reported depth 200 ft (61.0 m), cased to 140 ft (42.7 m).
DATUM.--Altitude of land-surface datum is 6,240 ft (1,902 m). Measuring point: Top edge of 3 in (7.5 cm) pipe on north side of pump, 1.30 ft (0.40 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1951 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 57.96 ft (17.67 m) below land-surface datum, Feb. 16, 1951; lowest measured, 106.57 ft (32.48 m) below land-surface datum, Sept. 25, 1979.
EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 55.13 ft (16.80 m) below land-surface datum, Feb. 18, 1949; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 22	96.74
Sept. 25	106.57

Santa Fe Area

353810106025501. Local number, 16N.8E.12.131.
LOCATION.--Lat 35°38'10", long 106°02'55", Hydrologic Unit 13020201.
Owner: Santa Fe Country Club.
AQUIFER.--Ancha Formation(?) and Tesuque Formation (?).
WELL CHARACTERISTICS.--Drilled unused well, diameter 5 in (0.13 m), depth 400 ft (122 m), cased.
DATUM.--Altitude of land-surface datum is 6,420 ft (1,957 m). Measuring point: Top of 3/8 in (0.95 cm) hole in cover plate, 0.20 ft (0.06 m) above land-surface datum.
PERIOD OF RECORD.--Aug. 1951, Jan. 1953 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 247.93 ft (75.56 m) below land-surface datum, Jan. 22, 1979; lowest measured, 272.06 ft (82.92 m) below land-surface datum, Aug. 10, 1966.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 22	247.93
Aug. 24	248.41

SIERRA COUNTY

Hot Springs Area

330715107171901. Local number, 14S.4W.6.3221.
LOCATION.--Lat 33°07'15", long 107°17'19", Hydrologic Unit 13030101.
Owner: City of Truth or Consequences.
AQUIFER.--Santa Fe Group of Quaternary Age.
WELL CHARACTERISTICS.--Drilled unused municipal well, diameter 12 in (0.31 m), depth 442 ft (134 m) cased.
DATUM.--Altitude of land-surface datum is 4,265 ft (1,291 m). Measuring point: Top of casing extension, 1 ft (0.30 m) above former casing, and 1.60 ft (0.48 m) above land-surface datum.
PERIOD OF RECORD.--1976.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 9.25 ft (2.81 m) below land-surface datum, Feb. 28, 1977; lowest measured, 31.31 ft (9.48 m) below land-surface datum, Aug. 23, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Feb.	no access
Aug.	no access

325550107184001. Local number, 15S.5W.24.312.
LOCATION.--Lat 32°55'50", long 107°18'40", Hydrologic Unit 13030101.
Owner: William M. Dawson.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 16 in (0.41 m), depth and casing information not available.
DATUM.--Altitude of land-surface datum is 4,279 ft (1,304 m). Measuring point: Top of casing, 1.20 ft (0.36 m) above land-surface datum.
PERIOD OF RECORD.--May 1974 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level, 25.13 ft (7.66 m) below land-surface datum, Sept. 11, 1975; lowest, 40.76 ft (12.42 m) below land-surface datum, June 29, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979
DAILY HIGHEST VALUES, FROM RECORDER GRAPH

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
5	39.37	39.21	37.12	29.10	28.80	29.70	30.35	30.45	30.31	30.05	30.12	30.09
10	39.32	39.29	36.04	28.42	28.95	29.80	30.37	30.49	30.25	30.04	30.17	30.09
15	39.26	39.35	34.97	28.23	29.01	29.95	30.42	30.44	30.13	30.01	30.27	30.16
20	39.23	39.40	33.91	28.28	29.17	30.10	30.46	30.42	30.05	30.05	30.30	30.18
25	39.20	39.41	31.59	28.40	29.42	30.20	30.47	30.40	30.02	30.02	30.26	30.21
eom	39.20	38.30	30.50	28.66	29.50	30.28	30.46	30.36	30.05	30.05	30.15	30.23

WTR YEAR 1979 MAX 28.21 Jan. 18, 1979 MIN 39.40 Oct. 2, 1978

GROUND-WATER LEVELS

Rincon Valley

325350107175501. Local number, 16S.5W.25.211.

LOCATION.--Lat 32°53'35", long 107°17'55", Hydrologic Unit 13030102.
Owner: U.S. Government.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 10 in (0.25 m), depth 32 ft (9.8 m), cased to 32 ft (9.8 m).

DATUM.--Altitude of land-surface datum is 4,050 ft (1,234 m). Measuring point: Top of casing, 3.00 ft (0.91 m) above land-surface datum.

PERIOD OF RECORD.--Apr. 1957 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 13.03 ft (3.97 m) below land-surface datum, Jan. 8, 1975; lowest measured, 27.78 ft (8.47 m) below land-surface datum, Jan. 6, 1958.

EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 11.30 ft (3.44 m) below land-surface datum, Apr. 17, 1947; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 30	24.68
Aug. 16	23.85

TAOS COUNTY

Sunshine Valley

365036105355301. Local number, 30N.13E.18.1121.

LOCATION.--Lat 36°50'36", long 105°35'53", Hydrologic Unit 13020101.
Owner: Unknown.

AQUIFER.--Valley Fill.

WELL CHARACTERISTICS.--Drilled observation water-table well, diameter 10 in (0.25 m), depth 500 ft (152 m).

DATUM.--Altitude of land-surface datum is 7,600 ft (2,316 m). Measuring point: Top of casing, 2.00 ft (0.60 m) above land-surface datum.

PERIOD OF RECORD.--Sept. 1973 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 70.00 ft (21.34 m) below land-surface datum, Aug. 14, 1975; lowest measured, 77.33 ft (23.50 m) below land-surface datum, Aug. 9, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan.	not measured
July 24	77.09

365655105354001. Local number, 1S.73W.19.422.

LOCATION.--Lat 36°56'55", long 105°35'40", Hydrologic Unit 13020101.
Owner: Spring Bros.

AQUIFER.--Santa Fe Group.

WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), depth 446 ft (136 m), cased to 446 ft (136 m).

DATUM.--Altitude of land-surface datum is 7,657 ft (2,334 m). Measuring point: Top of casing, 1.18 ft (0.36 m) above land-surface datum.

PERIOD OF RECORD.--July 1955-Aug. 1965, Feb. 1967 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 193.95 ft (59.11 m) below land-surface datum, June 5, 1957; lowest measured, 219.94 ft (67.04 m) below land-surface datum, Aug. 2, 1961.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

Date	Water Level
Jan.	no access
Aug.	no access

365410105354501. Local number, 2S.73W.5.222.

LOCATION.--Lat 36°54'10", long 105°35'45", Hydrologic Unit 13020101.
Owner: Unknown.

AQUIFER.--Santa Fe Group.

WELL CHARACTERISTICS.--Drilled domestic and stock water-table well, diameter 6 in (0.15 m), depth unknown.

DATUM.--Altitude of land-surface datum is 7,587 ft (2,313 m). Measuring point: 1 in (2.54 cm) hole in plate over casing, 10 ft (3.1 m) above top of casing, 1 ft (0.3 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1974 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 77.54 ft (26.63 m) below land-surface datum, Aug. 14, 1975; lowest measured, 84.78 ft (25.77 m) below land-surface datum, Jan. 27, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan.	not measured
July 24	82.77

TORRANCE COUNTY

Estancia Valley

343458106042001. Local number, 4N.8E.11.433.
LOCATION.--Lat 34°34'58", long 106°04'20", Hydrologic Unit 13050001.
Owner: F. D. Breedlove.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), reported depth 180 ft (54.9 m), cased to 160 ft (48.8 m).
DATUM.--Altitude of land-surface datum is 6,148 ft (1,874 m). Measuring point: Top of casing at high point on northwest side of well, 0.70 ft (0.21 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.93 ft (25.28 m) below land-surface datum, May 2, 1951; lowest measured, 117.19 ft (35.71 m) below land-surface datum, July 19, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 19	104.39
July 19	117.19

344016106064701. Local number, 5N.8E.8.424.
LOCATION.--Lat 34°40'16", long 106°06'47", Hydrologic Unit 13050001.
Owner: A T. Austin.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 204 ft (62.2 m), cased to 98 ft (29.9 m).
DATUM.--Altitude of land-surface datum is 6,214 ft (1,894 m). Measuring point: Top of casing, 0.80 ft (0.24 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 62.03 ft (18.91 m) below land-surface datum, Mar. 23, 1948; lowest measured, 114.74 ft (34.88 m) below land-surface datum, Jan. 16, 1978.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 19	111.49
July 19	well being pumped

344234106074901. Local number, 6N.8E.32.212.
LOCATION.--Lat 34°42'34", long 106°07'49", Hydrologic Unit 13050001.
Owner: Bevis Strong.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), reported depth 209 ft (63.7 m), cased to 84 ft (25.6 m).
DATUM.--Altitude of land-surface datum is 6,165 ft (1,879 m). Measuring point: Top of 1 1/2 in (3.8 cm) hole in pumpbase, 0.04 ft (0.01 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1947 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 23.22 ft (7.08 m) below land-surface datum, Feb. 18, 1947; lowest measured, 69.43 ft (21.16 m) below land-surface datum, Jan. 19, 1979.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 19	69.43
July 19	well being pumped

344622105575501. Local number, 6N.9E.11.211.
LOCATION.--Lat 34°46'22", long 105°57'55", Hydrologic Unit 13050001.
Owner: R. O. Brown.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 18 in (0.46 m), reported depth 148 ft (45.1 m), cased to 140 ft (42.7 m).
DATUM.--Altitude of land-surface datum is 6,086 ft (1,855 m). Measuring point: Top of casing, 0.75 ft (0.23 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1950 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 5.80 ft (1.77 m) below land-surface datum, Feb. 8, 1950; lowest measured, 28.25 ft (8.61 m) below land-surface datum, July 19, 1979.
EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 5.07 ft (1.55 m) below land-surface datum, May 4, 1949; lowest measured, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 25	11.17
July 19	28.25

GROUND-WATER LEVELS

TORRANCE COUNTY

Estancia Valley

344937106092201. Local number, 7N.7E.13.4312.
LOCATION.--Lat 34°49'37", long 106°09'22", Hydrologic Unit 13050001.
Owner: Woodrow Clements.
AQUIFER.--Madera Formation.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 7 in (0.18 m), depth and casing information not available.
DATUM.--Altitude of land-surface datum is 6,500 ft (1,980 m). Measuring point: Top of casing at concrete slab level which is 0.2 ft (0.06 m) above land-surface datum.
REMARKS.--Old CO_2 well.
PERIOD OF RECORD.--Feb. 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 110.01 ft (33.53 m) below land-surface datum, Jan. 19, 1979; lowest measured, 110.37 ft (33.55 m) below land-surface datum, Jan. 18, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 19	110.01
July 19	110.30

345231106043601. Local number, 8N.8E.35.322.
LOCATION.--Lat 34°52'31", long 106°04'36", Hydrologic Unit 13050001.
Owner: A. C. Hibner.
AQUIFER.--Valley Fill(?).
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), reported depth 228 ft (69.5 m), cased to 110 ft (33.5 m).
DATUM.--Altitude of land-surface datum is 6,240 ft (1,902 m). Measuring point: Top of casing, 0.75 ft (0.23 m) above land-surface datum.
PERIOD OF RECORD.--Jan. 1948 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 51.08 ft (15.57 m) below land-surface datum, Mar. 25, 1948; lowest measured, 106.87 ft (32.48 m) below land-surface datum, Aug. 3, 1978.
EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water-level measured, 50.12 ft (15.28 m) below land-surface datum, May 28, 1947; lowest measured, same for period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 19	locked out
July 19	locked out

345900106034301. Local number, 9N.8E.24.334.
LOCATION.--Lat 34°59'00", long 106°30'43", Hydrologic Unit 13050001.
Owner: Valley Land and Irrigation Co.
AQUIFER.--Valley Fill.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 16 in (0.41 m), depth unknown.
DATUM.--Altitude of land-surface datum is 6,380 ft (1,944 m). Measuring point: Top of casing south side, 0.50 ft (0.15 m) above land-surface datum.
PERIOD OF RECORD.--Feb. 1973 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 64.67 ft (19.71 m) below land-surface datum, Feb. 23, 1973; lowest measured, 91.37 ft (27.85 m) below land-surface datum, Aug. 12, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 18	locked out this well discontinued
July 19	well found dry July 19, 1979

UNION COUNTY

Clayton Area

360940103083501. Local number, 19N.36E.23.244.
LOCATION.--Lat 36°09'40", long 103°08'35", Hydrologic Unit 11090102.
Owner: Stevens.
AQUIFER.--Dakota and Purgatoire Sandstone.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 14 in (0.36 m), depth 206 ft (62.8 m).
DATUM.--Altitude of land-surface datum is 4,326 ft (1,318 m). Measuring point: Top of casing, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--Mar. 1970 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 145.22 ft (44.26 m) below land-surface datum, Mar. 17, 1971; lowest measured, 155.65 ft (47.77 m) below land-surface datum, Mar. 24, 1970.

WATER YEAR, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 24	146.00
July 25	145.26

UNION COUNTY

Clayton Area

361910103170501. Local number, 24N.36E.17.244.
LOCATION.--Lat 36°19'10", long 103°17'05", Hydrologic Unit 11090103.
Owner: Glen Burrows.
AQUIFER.--Ogallala Formation.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 10 in (0.25 m), depth 231 ft (70.4 m).
DATUM.--Altitude of land-surface datum is 4,707 ft (1,434 m). Measuring point: Top of casing, 1.30 ft (0.40 m) above land-surface datum.
PERIOD OF RECORD.--May 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 82.99 ft (27.23 m) below land-surface datum, Jan 8, 1972; lowest measured, 87.47 ft (26.66 m) below land-surface datum, July 25, 1979.
EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water-level measured, 81.38 ft (24.80 m) below land-surface datum, May 8, 1968; lowest, same as period of record.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 24	87.10
July 25	87.47

363005103081001. Local number, 26N.36E.7.142.
LOCATION.--Lat 36°30'05", long 103°08'10", Hydrologic Unit 11090103.
Owner: J. E. Armes.
AQUIFER.--Dakota, Purgatoire, and Morrison Sandstone.
WELL CHARACTERISTICS.--Drilled unused irrigation water-table well, diameter 16 in (0.41 m), depth 770 ft (234 m).
DATUM.--Altitude of land-surface datum is 4,980 ft (1,517 m). Measuring point: Top of 16 in (0.41 m) casing level with concrete base, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--Mar. 1971 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 127.41 ft (38.83 m) below land-surface datum, Mar. 17, 1971; lowest measured, 233.26 ft (70.91 m) below land-surface datum, Sept. 20, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan.	snow block
July 25	159.48

Capulin Basin

364430103595501. Local number, 29N.28E.18.341.
LOCATION.--Lat 36°44'30", long 103°59'55", Hydrologic Unit 11040001, 300 ft (91 m) north of U.S. Highway 64-87 at Capulin.
Owner: City of Raton.
AQUIFER.--Cinders.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 78 ft (23.8 m).
DATUM.--Land-surface datum is 6,821.2 ft (2,079.1 m) above mean sea level. Measuring point: Edge of 2 in (5 cm) hole in west side of steel plate, at land-surface datum.
PERIOD OF RECORD.--July 1951, Feb. 1957 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 28.01 ft (8.54 m) below land-surface datum, Feb. 8, 1974; lowest measured, 36.23 ft (10.97 m) below land-surface datum, Aug. 24, 1976.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 24	34.10
July 24	31.54

364330103015201. Local number, 29N.37E.30.110.
LOCATION.--Lat 36°43'30", long 103°01'52", Hydrologic Unit 11040001.
Owner: F. P. Seneca.
AQUIFER.--Dakota - Purgatoire Formation.
WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 14 in (0.36 m), depth 332 ft (101 m).
DATUM.--Altitude of land-surface datum is 4,880 ft (1,478 m). Measuring point: Entry port in west side of pump base, 1.00 ft (0.30 m) above land-surface datum.
PERIOD OF RECORD.--1976.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 240.20 ft (73.21 m) below land-surface datum, Jan. 27, 1976; lowest measured, 252.09 ft (76.83 m) below land-surface datum, July 25, 1979.
EXTREMES OUTSIDE PERIOD OF RECORD.--Highest water level measured, 224.55 ft (68.44 m), Mar. 6, 1971; lowest measured 246.80 ft (75.22 m), Feb. 6, 1974.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Jan. 23	U.T.M.
July 25	252.09

VALENCIA COUNTY

Grants-Bluewater Area

350400107510501. Local number, 10N.10W.26.331.

LOCATION.--Lat 35°04'00", long 107°51'05", Hydrologic Unit 13020207.
Owner: Monico Mirabal.

AQUIFER.--Glorieta Sandstone of Permian Age.

WELL CHARACTERISTICS.--Drilled irrigation water-table well, diameter 16 in (0.41 m), depth 216 ft (65.8 m).

DATUM.--Altitude of land-surface datum is 6,455 ft (1,967 m). Measuring point: Top of 1/2 in (1.3 cm) hole in pump base, 1.00 ft (0.30 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1952 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 22.18 ft (6.76 m) below land-surface datum, Feb. 21, 1952; lowest measured, 34.69 ft (11.57 m) below land-surface datum, Jan. 17, 1977.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Mar. 6	29.72
July 17	31.90

350925107523001. Local number, 11N.10W.27.241.

LOCATION.--Lat 35°09'25", long 107°52'30", Hydrologic Unit 13020207.
Owner: City of Grants.

AQUIFER.--San Andres Limestone of Permian Age.

WELL CHARACTERISTICS.--Drilled industrial water-table well, diameter 16 to 12 in (0.41-0.30 m), depth 158 ft (48.2 m), perforated to 58 ft (17.7 m).

DATUM.--Altitude of land-surface datum is 6,840 ft (1,975 m). Measuring point: Top of 1 in (2.5 cm) hole in pump base, 1.35 ft (0.41 m) above land-surface datum.

PERIOD OF RECORD.--Feb. 1953 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 19.86 ft (6.05 m) below land-surface datum, Feb. 20, 1953; lowest measured, 39.08 ft (11.91 m) below land-surface datum, Aug. 1, 1972.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Mar. 7	34.22
July 17	38.44

351400107524201. Local number, 12N.10W.29.434.

LOCATION.--Lat 35°14'00", long 107°52'42", Hydrologic Unit 13020207.
Owner: A. R. Card.

AQUIFER.--San Andres Limestone of Permian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 18 in (0.46 m), reported depth 205 ft (62.5 m), cased 0-150 ft (0-45.7 m), perforated 93-130 ft (28.4-39.6 m).

DATUM.--Altitude of land-surface datum is 6,552 ft (1,997 m). Measuring point: Lower edge of hole in north side of casing, 2.20 ft (0.67 m) above land-surface datum.

PERIOD OF RECORD.--Oct. 1944, Feb. 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 65.46 ft (19.95 m) below land-surface datum, Oct. 14, 1944; lowest measured, 107.61 ft (32.80 m) below land-surface datum, Aug. 6, 1975.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Mar. 26	98.85
July 17	98.79

351650107535001. Local number, 12N.11W.9.424.

LOCATION.--Lat 35°16"50", long 107°53'50", Hydrologic Unit 13020207.
Owner: Tom Yager.

AQUIFER.--San Andres Limestone and Yeso Formation of Permian Age.

WELL CHARACTERISTICS.--Drilled unused artesian well, diameter 16 in (0.41 m), reported depth 505 ft (154 m), 16 in (0.41 m) casing to 175 ft (53.3 m), 12 in (0.30 m) casing to 325 ft (99.1 m).

DATUM.--Altitude of land-surface datum is 6,642 ft (2,024 m). Measuring point: Top of casing, 3.05 ft (0.93 m) above land-surface datum.

PERIOD OF RECORD.--May 1946 to current year.

EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 93.75 ft (28.58 m) below land-surface datum, May 10, 1946; lowest measured, 139.05 ft (42.38 m) below land-surface datum, Aug. 1, 1957.

WATER LEVEL, IN FEET BELOW LAND-SURFACE, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Feb. 28	123.69
July 17	120.69

VALENCIA COUNTY

Grants-Bluewater Area

351610107514501. Local number, 12N.11W.14.213.
LOCATION.--Lat 35°16'10", long 107°51'35", Hydrologic Unit 13020207.
Owner: Duane Berryhill.
AQUIFER.--Alluvium of Quaternary Age.
WELL CHARACTERISTICS.--Drilled unused water-table well, diameter 4 in (0.10 m), depth 130 ft (39.6 m), surface casing 5 ft (1.5 m).
DATUM.--Land-surface datum is 6,605.4 ft (2,013.3 m). Measuring point: Top of 4 in (0.10 m) down spout, 3.70 ft (1.3 m) above land-surface datum (since Feb. 10, 1966).
PERIOD OF RECORD.--June 1949 to current year.
EXTREMES FOR PERIOD OF RECORD.--Highest water level measured, 85.83 ft (26.16 m) below land-surface datum, Aug. 3, 1967; lowest measured, 101.39 ft (30.90 m) below land-surface datum, June 10, 1954.

WATER LEVEL, IN FEET BELOW LAND-SURFACE DATUM, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DATE	WATER LEVEL
Mar. 28	86.95
July 17	87.15

EXPLANATION OF GEOLOGIC UNIT (AQUIFER) CODES (LISTED FROM YOUNGEST TO OLDEST AGE) U-UPPER, M-MIDDLE, L-LOWER: 000 EXRV-Unknown, Extrusive Rocks: 000 IRSV-Unknown, Intrusive Rocks; 110 AVMB-Cenozoic, Quaternary Alluvium, Bolson Deposits and other Surface Deposits; 110 BLSN-Cenozoic, Quaternary, Bolson Fill; 112 SNTF-Cenozoic, Quaternary, Pleistocene, Santa Fe Group; 120 CGLM-Cenozoic, Tertiary, Conglomerate of Tertiary Age; 121 TSUQ-Cenozoic, Tertiary, Pliocene, Tesuque Formation, Undifferentiated Unit; 124 BACA-Cenozoic, Tertiary, Eocene, Baca Formation; 210 CRCS-Mesozoic, Cretaceous, Cretaceous System; 210 MNCS-Mesozoic, Cretaceous, Mancos Shale; 211 FRLD-Mesozoic. U-M Cretaceous, Fruitland Formation; 211 GLLP-Mesozoic, U-M Cretaceous, Gallup Sandstone; 211 MVRD-Mesozoic, U-M Cretaceous, Mesaverde Group; 211 PCCF-Mesozoic, U-M Cretaceous, Pictured Cliffs Sandstone; 211 MRSN-Mesozoic, U Jurassic, Morrison Formation; 221 ZUNIS-Mesozoic, U Jurassic, Zuni Sandstone; 231 CHNL-Mesozoic, U Triassic, Chinle Formation; 310 GLRT-Paleozoic, Permian, Glorieta Sandstone Member of San Andres Formation of Manzano Group; 310 MGNT-Paleozoic, Permian, Magenta Member of Rustler Formation; 312 CLBR-Paleozoic, Permian, Ochoan, Culebra Dolomite Member of Rustler Formation; 312 RSLRL-Paleozoic, Permian, Ochoan, Rustler Formation, Unnamed Lower Member; 313 BLCN-Paleozoic, Permian, Guadalupian, Bell Canyon Formation.

REMARKS.--Ground Water sites in this table are segregated by county which appear alphabetically. The sites are then listed in ascending local identifiers.

BERNALILLO COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAMP-LING DEPTH (FT) (00003)	TO BOT-TOM OF WATER-BEARING ZONE (FT) (72003)
ATRISCO GR ABQ COLLEGE 2	350612106440901	001	GW	78-12-01	1340	121TSUQ	291.00	1575	--
PONDEROSA NUM 6	350851106322101	001	GW	79-04-25	1000	121TSUQ	--	--	--
10N.04E.21.344;LOMAS 7;	350422106312601	001	GW	79-02-05	1026	121TSUQ	600.00	--	--
10N.04E.28.22,LOMAS # 8;	350410106310001	001	GW	79-03-21	1000	121TSUQ	644.00	--	--
11N.04E.28.111	350931106315501	001	GW	79-06-20	1015	121TSUQ	725.00	1700	1690
11N.04E.32.100	350835106314601	001	GW	79-06-01	1000	112SNTF	714.00	--	1532

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT-TOM OF SAMPLE INTER-VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER-VAL (FT) (72015)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE, AIR (DEG C) (00020)
ATRISCO GR ABQ COLLEGE 2	78-12-01	--	1575	1563	550	7320	2200	440	8.5	--
PONDEROSA NUM 6	79-04-25	--	1680	--	--	4560	--	700	7.7	20.0
10N.04E.21.344;LOMAS 7;	79-02-05	--	1675	1663	835	5160	2835	350	7.6	--
10N.04E.28.22,LOMAS # 8;	79-03-21	--	1700	1688	880	180	2950	400	7.6	--
11N.04E.28.111	79-06-20	963	--	--	--	120	2310	422	7.7	--
11N.04E.32.100	79-06-01	918	1540	--	--	5520	2100	280	7.6	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	TEMPER-ATURE (DEG C) (00010)	COLOR (PLAT-INUM COBALT UNITS) (00080)	TUR-BID-ITY (NTU) (00076)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
ATRISCO GR ABQ COLLEGE 2	78-12-01	30.0	0	.60	7	0	2.5	.2	100	16
PONDEROSA NUM 6	79-04-25	28.0	--	--	--	--	--	--	--	--
10N.04E.21.344;LOMAS 7;	79-02-05	26.5	3	.90	80	0	26	3.7	37	1.8
10N.04E.28.22,LOMAS # 8;	79-03-21	25.0	3	2.6	120	0	39	5.5	37	1.5
11N.04E.28.111	79-06-20	26.0	5	1.0	120	28	44	1.8	43	1.7
11N.04E.32.100	79-06-01	26.0	1	5.7	76	0	28	1.5	31	1.5

BERNALILLO COUNTY - Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SODIUM+POTAS-SIUM DIS-SOLVED (MG/L AS NA) (00933)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)
ATRISCO GR ABQ COLLEGE 2	78-12-01	--	1.4	140	.0	62	6.9	1.0	30	299
PONDEROSA NUM 6	79-04-25	--	--	--	--	--	--	--	--	--
10N.04E.21.344;LOMAS 7;	79-02-05	--	2.8	110	.2	34	7.5	1.2	26	206
10N.04E.28.22,LOMAS # 8;	79-03-21	--	3.0	120	.1	53	9.6	.8	26	249
11N.04E.28.111	79-06-20	47	3.8	89	.0	31	61	.7	30	<270
11N.04E.32.100	79-06-01	32	1.2	110	.0	17	7.1	.9	30	184

LOCAL IDENT-I-FIER	DATE OF SAMPLE	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
ATRISCO GR ABQ COLLEGE 2	78-12-01	2.4	28	20	2	10	2	30	14
PONDEROSA NUM 6	79-04-25	--	--	--	--	--	--	--	--
10N.04E.21.344;LOMAS 7;	79-02-05	.42	5	70	<1	0	2	0	1
10N.04E.28.22,LOMAS # 8;	79-03-21	.61	1	100	1	0	0	20	15
11N.04E.28.111	79-06-20	.17	18	200	1	0	0	0	4
11N.04E.32.100	79-06-01	.22	10	100	1	10	1	10	1

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
ATRISCO GR ABQ COLLEGE 2	78-12-01	5	.1	1	0
PONDEROSA NUM 6	79-04-25	--	--	--	--
10N.04E.21.344;LOMAS 7;	79-02-05	10	.2	1	0
10N.04E.28.22,LOMAS # 8;	79-03-21	10	.0	1	0
11N.04E.28.111	79-06-20	0	.3	1	0
11N.04E.32.100	79-06-01	20	1.5	0	0

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)
ATRISCO GR ABQ COLLEGE 2	350612106440901	001	GW	78-12-01	1340	7.3	3.9	3.6	7.0
PONDEROSA NUM 6	350851106322101	001	GW	79-04-25	1000	<9.0	7.5	6.6	--
10N.04E.21.344;LOMAS 7;	350422106312601	001	GW	79-02-05	1026	--	--	--	2.1
10N.04E.28.22,LOMAS # 8;	350410106310001	001	GW	79-03-21	1000	<5.5	4.8	4.4	1.4
11N.04E.28.111	350931106315501	001	GW	79-06-20	1015	<5.7	5.9	5.4	3.3
11N.04E.32.100	350835106314601	001	GW	79-06-01	1000	3.7	3.3	3.0	3.9

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

BERNALILLO COUNTY - Continued

STATION NUMBER	DATE OF SAMPLE	TIME	COUNTY	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
350612106440901	78-12-01	1340	001	.0	.00	.0	.00	.00	.00	.00	.00
350851106322101	79-04-25	1000	001	.0	.00	.0	.00	.00	.00	.00	.00
350422106312601	79-02-05	1026	001	.0	.00	.0	.00	.00	.00	.00	.00
350410106310001	79-03-21	1000	001	.0	.00	.0	.00	.00	.00	.00	.00
350931106315501	79-06-20	1015	001	.0	.00	.0	.00	.00	.00	.00	.00
350835106314601	79-06-01	1000	001	.0	.00	.0	.00	.00	.00	.00	.00

STATION NUMBER	DATE OF SAMPLE	ENDRIN, TOTAL (UG/L) (39390)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	TOX-APHENE, TOTAL (UG/L) (39400)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)	SILVEX, TOTAL (UG/L) (39760)
350612106440901	78-12-01	.00	.00	.00	.00	--	0	.00	.00	.00
350851106322101	79-04-25	.00	.00	.00	.00	.00	0	.00	.00	.00
350422106312601	79-02-05	.00	.00	.00	.00	.00	0	.00	.00	.00
350410106310001	79-03-21	.00	.00	.00	.00	.00	0	--	--	--
350931106315501	79-06-20	.00	.00	.00	.00	.00	0	.00	.00	.00
350835106314601	79-06-01	.00	.00	.00	.00	.00	0	.00	.00	.00

STATION NUMBER	DATE OF SAMPLE	PER-THANE TOTAL (UG/L) (39034)	NAPH-THA-LENES, POLY-CHLOR. TOTAL (UG/L) (39250)	MIREX, TOTAL (UG/L) (39755)
350612106440901	78-12-01	.00	.00	.00
350851106322101	79-04-25	.00	--	.00
350422106312601	79-02-05	.00	--	.00
350410106310001	79-03-21	.00	--	.00
350931106315501	79-06-20	.00	--	.00
350835106314601	79-06-01	.00	--	.00

CATRON COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. NGVD) (72000)
01N.16W.03.214	342038108295401	003	GW	79-06-27	0945	--	--	--	6880.00
01N.16W.03.214	342035108294901	003	GW	79-06-27	1000	--	--	--	6880.00
01N.20W.27.2 RED HILL LA	341730108550001	003	GW	79-09-28	--	--	--	--	--
01S.20W.21.411 EAST WIND	341211108560301	003	GW	79-06-26	1019	--	304.00	--	7548.00
01S.21W.25.244 COW SPRIN	341121108584901	003	GW	79-06-26	0800	--	--	--	7554.00

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CATRON COUNTY - Continued

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. NGVD) (72000)
02N.15W.05 MARIANO SPRIN	342545108252001	003	SP	79-08-03	--	124BACA	--	--	--
02N.20W.29.41 GOAT SPRIN	342200108571001	003	SP	79-08-05	--	210CRCS	--	--	--
02S.21W.04.124	340946109021601	003	GW	79-06-26	0835	--	12.80	13	7331.00
03N.18W.22.13 JERRY WELL	342830108423001	003	GW	79-07-17	1630	210MNCS	--	--	--
03S.09W.07.442 LUTZ WELL	340326107481801	003	GW	79-08-30	1100	--	--	--	--
03S.09W.21.221 JOHN HAND	340218107462201	003	GW	79-08-30	1245	--	--	--	--
03S.09W.28.243 NEW WELL	340115107461701	003	GW	79-08-02	1400	--	193.20	--	--
04N.19W.25.424 PUEBLO WI	343220108470001	003	GW	79-08-04	--	211GLLP	--	--	--
04S.09W.06.212 AKE HDQS	335937107483301	003	GW	79-08-21	1840	--	--	--	--
04S.09W.08.132 ESPANOL W	335835107475001	003	GW	79-07-13	--	--	--	--	--
04S.09W.17.311 C BAR N	335727107480501	003	GW	79-07-13	--	--	--	--	--
04S.10W.05.333 PLAINS WE	335859107542401	003	GW	79-08-29	2000	--	131.04	--	--
04S.12W.29.122	335617108065501	003	GW	79-07-11	--	--	--	--	--
05S.10W.09.232 HARRIET M	335321107523901	003	GW	79-08-29	1500	--	--	--	--
05S.12W.09.434 DAVE FARR	335248108052901	003	GW	79-08-30	1615	--	--	--	--
05S.12W.34.434A ED FARR	334925108043201	003	GW	79-07-12	--	--	--	--	--
05S.13W.04.241 FARR CATT	335416108114201	003	GW	79-08-30	1830	--	--	--	--
05S.13W.09.244 FARR CATT	335320108114001	003	GW	79-08-30	1820	--	--	--	--
05S.13W.22.112 FARR CATT	335155108112101	003	GW	79-08-30	1730	--	--	--	--
05S.13W.27.422 FARR CATT	335037108102901	003	GW	79-08-30	1800	--	--	--	--
05S.13W.32.322	334927108133301	003	GW	79-06-13	--	--	43.65	1100	--
05S.14W.09.412 SATO LEE	335311108180801	003	SP	79-08-23	1130	--	--	--	--
05S.16W.03.143 TULAROSA	335407108295801	003	SP	78-11-29	1200	--	--	--	--
06S.13W.11.243 WEST FULL	334819108084701	003	GW	79-08-30	1510	--	--	--	--
06S.13W.11.244 EAST FULL	334819108084501	003	GW	79-08-30	1515	--	--	--	--
06S.13W.20.122 OLD FARR	335144108131301	003	GW	79-08-30	1430	--	--	--	--
06S.14W.07.334 YORK HDQS	334748108193801	003	GW	79-08-22	2000	--	--	--	--
06S.14W.08.333 LEE YORK	334746108184801	003	GW	79-08-22	1930	--	--	--	--
06S.14W.21.433 LEE YORK	334602108171201	003	GW	79-08-30	1130	--	--	--	--
06S.15W.20.211B YORK DUG	334649108343301	003	GW	79-08-22	1230	--	37.98	--	--
07S.12W.03.424 CHIMNEY W	334347108032601	003	GW	79-07-11	--	--	--	750	--
07S.14W.16.133 HQ LASSIT	334210108175101	003	GW	79-08-22	1200	--	--	--	--
07S.15W.34.213 Y CANYON	333946108222301	003	GW	79-08-22	1630	--	--	--	--
08S.13W.16.211 TRIANGLE	333718108110201	003	GW	79-08-23	1445	--	--	1350	--
08S.13W.18.131 MAIN WELL	333403108134501	003	GW	79-08-23	1545	--	--	1080	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PUMP OR FLOW PERIOD PRIOR TO SAMPLING (MIN) (72004)	FLOW RATE, INSTANTANEOUS (GPM) (00059)	SPECIFIC CONDUCTANCE (MICROMHOS) (00095)	PH (UNITS) (00400)	TEMPERATURE (DEG C) (00010)	HARDNESS (MG/L AS CACO3) (00900)	HARDNESS, NONCARBONATE (MG/L CACO3) (00902)	CALCIUM DISSOLVED (MG/L AS CA) (00915)	MAGNESIUM, DISSOLVED (MG/L AS MG) (00925)
01N.16W.03.214	79-06-27	--	--	1040	8.2	24.0	110	0	27	11
01N.16W.03.214	79-06-27	--	--	1020	7.9	20.0	110	0	27	10
01N.20W.27.2 RED HILL LA	79-09-28	--	--	--	--	19.8	150	0	34	16
01S.20W.21.411 EAST WIND	79-06-26	--	--	460	7.8	16.0	130	0	26	16
01S.21W.25.244 COW SPRIN	79-06-26	--	--	312	8.1	--	140	0	36	11
02N.15W.05 MARIANO SPRIN	79-08-03	--	--	--	--	12.6	140	0	43	9.0
02N.20W.29.41 GOAT SPRIN	79-08-05	--	--	--	--	12.6	120	0	24	14
02S.21W.04.124	79-06-26	--	--	487	7.7	14.0	120	0	29	12
03N.18W.22.13 JERRY WELL	79-07-17	--	--	--	--	--	3	0	1.2	.1
03S.09W.07.442 LUTZ WELL	79-08-30	--	3.0	420	7.8	18.0	31	0	11	.8
03S.09W.21.221 JOHN HAND	79-08-30	--	--	310	7.9	18.0	75	0	17	8.0
03S.09W.28.243 NEW WELL	79-08-02	--	--	240	8.3	26.0	42	0	13	2.4
04N.19W.25.424 PUEBLO WI	79-08-04	--	--	--	--	33.8	440	0	130	29
04S.09W.06.212 AKE HDQS	79-08-21	--	--	310	9.2	25.0	8	0	2.7	.2
04S.09W.08.132 ESPANOL W	79-07-13	15	--	400	8.6	17.0	24	0	6.7	1.7

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CATRON COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
04S.09W.17.311 C BAR N	79-07-13	20	--	330	9.0	32.0	3	0	.9	.1
04S.10W.05.333 PLAINS WE	79-08-29	--	--	360	7.9	15.0	130	0	29	13
04S.12W.29.122	79-07-11	--	--	360	7.9	19.0	120	0	31	11
05S.10W.09.232 HARRIET M	79-08-29	--	--	660	7.9	17.0	240	53	57	24
05S.12W.09.434 DAVE FARR	79-08-30	--	--	420	7.9	16.0	140	0	37	11
05S.12W.34.434A ED FARR	79-07-12	--	--	460	7.6	15.0	65	0	17	5.5
05S.13W.04.241 FARR CATT	79-08-30	--	--	480	7.4	16.0	130	0	31	13
05S.13W.09.244 FARR CATT	79-08-30	--	--	610	8.7	14.0	11	0	3.1	.7
05S.13W.22.112 FARR CATT	79-08-30	--	--	2000	8.4	14.5	38	0	7.0	5.1
05S.13W.27.422 FARR CATT	79-08-30	--	--	1620	9.7	15.0	2	0	.8	.1
05S.13W.32.322	79-06-13	--	--	40800	6.7	14.5	--	--	--	--
05S.14W.09.412 SATO LEE	79-08-23	--	--	250	8.1	19.0	83	0	19	8.6
05S.16W.03.143 TULAROSA	78-11-29	--	--	240	8.0	20.0	78	0	21	6.3
06S.13W.11.243 WEST FULL	79-08-30	--	--	800	8.0	19.0	130	0	39	8.9
06S.13W.11.244 EAST FULL	79-08-30	--	--	550	8.0	15.0	63	0	12	7.9
06S.13W.20.122 OLD FARR	79-08-30	--	--	1200	--	20.0	100	0	28	7.8
06S.14W.07.334 YORK HDQS	79-08-22	--	--	330	7.8	15.0	120	0	29	11
06S.14W.08.333 LEE YORK	79-08-22	--	--	1180	--	21.0	19	0	4.5	2.0
06S.14W.21.433 LEE YORK	79-08-30	--	1.0	380	8.1	19.0	63	0	17	5.0
06S.15W.20.211B YORK DUG	79-08-22	--	--	200	7.4	10.0	89	35	23	7.6
07S.12W.03.424 CHIMNEY W	79-07-11	30	--	280	8.0	26.0	96	0	34	2.6
07S.14W.16.133 HQ LASSIT	79-08-22	--	--	180	7.5	15.0	82	39	23	6.0
07S.15W.34.213 Y CANYON	79-08-22	--	--	220	8.1	18.0	66	0	23	2.1
08S.13W.16.211 TRIANGLE	79-08-23	--	7.5	210	8.5	28.0	75	0	25	3.0
08S.13W.18.131 MAIN WELL	79-08-23	--	--	510	7.6	19.5	160	79	53	7.0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
01N.16W.03.214	79-06-27	200	8.2	200	1.7	630	--	517	12	33
01N.16W.03.214	79-06-27	220	9.2	220	2.1	660	--	541	8.4	34
01N.20W.27.2 RED HILL LA	79-09-28	56	2.0	59	3.1	--	--	230	40	5.8
01S.20W.21.411 EAST WIND	79-06-26	42	1.6	45	3.4	240	--	197	19	10
01S.21W.25.244 COW SPRIN	79-06-26	22	.8	24	2.0	--	--	150	15	14
02N.15W.05 MARIANO SPRIN	79-08-03	37	1.3	39	1.8	--	--	210	17	16
02N.20W.29.41 GOAT SPRIN	79-08-05	61	2.4	64	2.9	--	--	200	49	9.6
02S.21W.04.124	79-06-26	51	2.0	53	2.0	200	--	164	22	33
03N.18W.22.13 JERRY WELL	79-07-17	190	45	190	.9	--	--	370	51	18
03S.09W.07.442 LUTZ WELL	79-08-30	78	6.1	79	.6	140	0	115	53	14
03S.09W.21.221 JOHN HAND	79-08-30	27	1.4	28	1.3	--	0	100	13	19
03S.09W.28.243 NEW WELL	79-08-02	40	2.7	41	.7	140	0	115	14	8.9
04N.19W.25.424 PUEBLO WI	79-08-04	170	3.5	180	13	--	--	460	310	68
04S.09W.06.212 AKE HDQS	79-08-21	59	9.3	60	.6	100	18	112	14	19
04S.09W.08.132 ESPANOL W	79-07-13	80	7.1	81	1.2	170	4	146	37	27
04S.09W.17.311 C BAR N	79-07-13	65	17	68	2.7	120	24	138	23	13
04S.10W.05.333 PLAINS WE	79-08-29	27	1.0	29	1.5	160	0	131	14	18
04S.12W.29.122	79-07-11	28	1.1	34	5.9	186	0	153	14	22
05S.10W.09.232 HARRIET M	79-08-29	43	1.2	44	1.1	230	0	189	59	61
05S.12W.09.434 DAVE FARR	79-08-30	35	1.3	37	2.2	170	0	139	21	2.6

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CATRON COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
05S.12W.34.434A ED FARR	79-07-12	70	3.8	71	1.4	286	0	235	20	16
05S.13W.04.241 FARR CATT	79-08-30	57	2.2	58	1.0	240	0	197	22	32
05S.13W.09.244 FARR CATT	79-08-30	150	20	150	.5	294	16	268	17	32
05S.13W.22.112 FARR CATT	79-08-30	410	29	410	2.7	280	0	230	190	380
05S.13W.27.422 FARR CATT	79-08-30	370	104	370	1.2	340	120	479	140	150
05S.13W.32.322	79-06-13	--	--	--	--	--	--	25	100	16000
05S.14W.09.412 SATO LEE	79-08-23	15	.7	17	1.8	130	0	107	7.3	4.2
05S.16W.03.143 TULAROSA	78-11-29	21	1.0	--	2.7	--	--	110	4.3	4.4
06S.13W.11.243 WEST FULL	79-08-30	130	4.9	130	3.8	--	--	160	96	81
06S.13W.11.244 EAST FULL	79-08-30	100	5.5	100	3.0	--	--	130	59	32
06S.13W.20.122 OLD FARR	79-08-30	220	9.5	230	8.4	--	--	210	150	160
06S.14W.07.334 YORK HDQS	79-08-22	19	.8	22	3.3	160	0	131	11	7.7
06S.14W.08.333 LEE YORK	79-08-22	280	28	280	4.0	--	--	460	32	120
06S.14W.21.433 LEE YORK	79-08-30	60	3.3	63	2.6	130	0	107	13	50
06S.15W.20.211B YORK DUG	79-08-22	6.7	.3	8.7	2.0	66	0	54	34	2.3
07S.12W.03.424 CHIMNEY W	79-07-11	23	1.0	24	1.3	180	0	148	10	4.8
07S.14W.16.133 HQ LASSIT	79-08-22	8.4	.4	12	3.3	52	0	43	45	4.2
07S.15W.34.213 Y CANYON	79-08-22	20	1.1	21	.5	110	0	90	6.9	3.6
08S.13W.16.211 TRIANGLE	79-08-23	18	.9	19	1.2	86	6	81	7.9	4.5
08S.13W.18.131 MAIN WELL	79-08-23	40	1.4	42	1.5	100	0	82	23	86

LOCAL IDENT- I- FIER	DATE OF SAMPLE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)
01N.16W.03.214	79-06-27	2.3	33	--	631	.02	--	1	--	--
01N.16W.03.214	79-06-27	2.3	34	677	664	.02	--	4	--	650
01N.20W.27.2 RED HILL LA	79-09-28	.4	21	316	315	.08	--	2	--	100
01S.20W.21.411 EAST WIND	79-06-26	.4	20	243	262	1.2	--	2	--	80
01S.21W.25.244 COW SPRIN	79-06-26	.3	27	225	225	1.6	--	1	--	40
02N.15W.05 MARIANO SPRIN	79-08-03	.5	24	293	280	1.3	--	2	--	80
02N.20W.29.41 GOAT SPRIN	79-08-05	.5	17	293	299	.20	--	1	--	160
02S.21W.04.124	79-06-26	.5	23	286	284	3.0	--	2	--	70
03N.18W.22.13 JERRY WELL	79-07-17	1.6	12	505	498	.13	--	1	--	470
03S.09W.07.442 LUTZ WELL	79-08-30	1.0	19	242	250	.52	--	4	--	180
03S.09W.21.221 JOHN HAND	79-08-30	.5	23	187	185	3.7	--	3	--	50
03S.09W.28.243 NEW WELL	79-08-02	.5	28	162	180	.77	--	3	--	70
04N.19W.25.424 PUEBLO WI	79-08-04	3.4	14	950	1020	.00	--	18	--	360
04S.09W.06.212 AKE HDQS	79-08-21	1.4	48	180	215	.58	--	8	--	70
04S.09W.08.132 ESPANOL W	79-07-13	.7	33	--	286	2.4	--	7	--	--
04S.09W.17.311 C BAR N	79-07-13	1.4	53	256	246	.90	--	8	--	100
04S.10W.05.333 PLAINS WE	79-08-29	.4	32	206	232	4.0	--	2	--	30
04S.12W.29.122	79-07-11	.2	52	257	263	1.6	--	2	--	80
05S.10W.09.232 HARRIET M	79-08-29	1.1	46	428	418	2.7	--	2	--	90
05S.12W.09.434 DAVE FARR	79-08-30	.4	19	239	135	1.6	--	2	--	50

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1978

CATRON COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)
05S.12W.34.434A ED FARR	79-07-12	1.2	26	--	300	.35	--	4	--	--
05S.13W.04.241 FARR CATT	79-08-30	1.1	37	286	321	1.9	--	5	--	90
05S.13W.09.244 FARR CATT	79-08-30	1.7	1.2	--	469	23	--	--	--	160
05S.13W.22.112 FARR CATT	79-08-30	1.4	44	1140	1180	.02	--	5	--	1500
05S.13W.27.422 FARR CATT	79-08-30	6.7	38	969	<996	.07	--	16	--	800
05S.13W.32.322	79-06-13	--	--	--	--	--	--	--	--	--
05S.14W.09.412 SATO LEE	79-08-23	.7	40	151	<163	.51	--	1	--	20
05S.16W.03.143 TULAROSA	78-11-29	.5	40	160	170	.84	.24	2	10	40
06S.13W.11.243 WEST FULL	79-08-30	3.2	51	--	514	.84	--	--	--	540
06S.13W.11.244 EAST FULL	79-08-30	3.4	21	--	345	6.3	--	--	--	550
06S.13W.20.122 OLD FARR	79-08-30	2.9	45	--	757	1.8	--	--	--	300
06S.14W.07.334 YORK HDQS	79-08-22	.5	39	192	<206	1.4	--	1	--	20
06S.14W.08.333 LEE YORK	79-08-22	1.1	36	--	757	.04	--	--	--	280
06S.14W.21.433 LEE YORK	79-08-30	.8	31	238	245	.35	--	1	--	50
06S.15W.20.211B YORK DUG	79-08-22	.5	35	137	<145	.10	--	1	--	30
07S.12W.03.424 CHIMNEY W	79-07-11	2.4	44	--	212	.29	--	1	--	--
07S.14W.16.133 HQ LASSIT	79-08-22	.2	33	150	<153	.59	--	1	--	30
07S.15W.34.213 Y CANYON	79-08-22	3.3	43	143	159	.31	--	1	--	30
08S.13W.16.211 TRIANGLE	79-08-23	1.7	43	135	<157	.95	--	2	--	30
08S.13W.18.131 MAIN WELL	79-08-23	2.1	39	313	304	.53	--	1	--	60

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	CHRO- MIUM, HEXA- VALENT, DIS. (UG/L AS CR) (01032)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
01N.16W.03.214	79-06-27	<1	0	--	<10	270	<10
01N.16W.03.214	79-06-27	<1	0	--	<10	130	<10
01N.20W.27.2 RED HILL LA	79-09-28	<1	0	--	0	100	3
01S.20W.21.411 EAST WIND	79-06-26	2	0	--	<10	10	<10
01S.21W.25.244 COW SPRIN	79-06-26	2	0	--	<10	10	<10
02N.15W.05 MARIANO SPRIN	79-08-03	<1	0	--	<10	10	<10
02N.20W.29.41 GOAT SPRIN	79-08-05	<1	10	--	<10	50	<10
02S.21W.04.124	79-06-26	1	0	--	<10	0	<10
03N.18W.22.13 JERRY WELL	79-07-17	1	10	--	<10	60	<10
03S.09W.07.442 LUTZ WELL	79-08-30	0	0	--	0	670	0
03S.09W.21.221 JOHN HAND	79-08-30	0	10	--	0	60	0
03S.09W.28.243 NEW WELL	79-08-02	<1	10	--	<10	120	20
04N.19W.25.424 PUEBLO WI	79-08-04	<1	10	--	<10	1600	<10
04S.09W.06.212 AKE HDQS	79-08-21	0	20	--	0	200	0
04S.09W.08.132 ESPANOL W	79-07-13	<1	20	--	<10	10	<10
04S.09W.17.311 C BAR N	79-07-13	<1	10	--	<10	50	<10
04S.10W.05.333 PLAINS WE	79-08-29	0	20	--	0	40	0
04S.12W.29.122	79-07-11	1	10	--	<10	0	<10
05S.10W.09.232 HARRIET M	79-08-29	1	0	--	11	30	<10
05S.12W.09.434 DAVE FARR	79-08-30	0	10	--	0	60	0
05S.12W.34.434A ED FARR	79-07-12	2	0	--	<10	300	<10
05S.13W.04.241 FARR CATT	79-08-30	0	20	--	0	20	0
05S.13W.09.244 FARR CATT	79-08-30	--	--	--	--	320	--
05S.13W.22.112 FARR CATT	79-08-30	1	0	--	<10	50	<10
05S.13W.27.422 FARR CATT	79-08-30	1	0	--	<10	40	<10

CATRON COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	CHRO- MIUM, HEXA- VALENT, DIS. (UG/L AS CR) (01032)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
05S.13W.32.322	79-06-13	--	--	--	--	--	--
05S.14W.09.412 SATO LEE	79-08-23	<1	0	--	<10	10	<10
05S.16W.03.143 TULAROSA	78-11-29	8	11	0	2	0	--
06S.13W.11.243 WEST FULL	79-08-30	--	--	--	--	150	--
06S.13W.11.244 EAST FULL	79-08-30	--	--	--	--	50	--
06S.13W.20.122 OLD FARR	79-08-30	--	--	--	--	250	--
06S.14W.07.334 YORK HDQS	79-08-22	3	10	--	<10	20	<10
06S.14W.08.333 LEE YORK	79-08-22	--	--	--	--	340	--
06S.14W.21.433 LEE YORK	79-08-30	0	10	--	0	20	0
06S.15W.20.211B YORK DUG	79-08-22	0	0	--	0	380	0
07S.12W.03.424 CHIMNEY W	79-07-11	3	0	--	<10	40	<10
07S.14W.16.133 HQ LASSIT	79-08-22	0	10	--	0	10	0
07S.15W.34.213 Y CANYON	79-08-22	0	0	--	0	670	0
08S.13W.16.211 TRIANGLE	79-08-23	0	10	--	0	80	0
08S.13W.18.131 MAIN WELL	79-08-23	0	0	--	0	20	0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)
01N.16W.03.214	79-06-27	170	.5	--	--
01N.16W.03.214	79-06-27	110	.6	--	--
01N.20W.27.2 RED HILL LA	79-09-28	50	.6	0	--
01S.20W.21.411 EAST WIND	79-06-26	3	.2	--	--
01S.21W.25.244 COW SPRIN	79-06-26	2	.7	--	--
02N.15W.05 MARIANO SPRIN	79-08-03	6	.8	--	--
02N.20W.29.41 GOAT SPRIN	79-08-05	1	.4	--	--
02S.21W.04.124	79-06-26	5	.7	--	--
03N.18W.22.13 JERRY WELL	79-07-17	2	.2	--	--
03S.09W.07.442 LUTZ WELL	79-08-30	10	1.2	--	--
03S.09W.21.221 JOHN HAND	79-08-30	10	2.4	--	--
03S.09W.28.243 NEW WELL	79-08-02	1	.2	--	--
04N.19W.25.424 PUEBLO WI	79-08-04	100	.9	--	--
04S.09W.06.212 AKE HDQS	79-08-21	0	.1	--	--
04S.09W.08.132 ESPANOL W	79-07-13	3	.2	--	--
04S.09W.17.311 C BAR N	79-07-13	<1	.1	--	--
04S.10W.05.333 PLAINS WE	79-08-29	10	1.3	--	--
04S.12W.29.122	79-07-11	<1	.1	--	--
05S.10W.09.232 HARRIET M	79-08-29	2	.1	--	--
05S.12W.09.434 DAVE FARR	79-08-30	0	1.8	--	--
05S.12W.34.434A ED FARR	79-07-12	30	.0	--	--
05S.13W.04.241 FARR CATT	79-08-30	10	2.4	--	--
05S.13W.09.244 FARR CATT	79-08-30	8	--	--	--
05S.13W.22.112 FARR CATT	79-08-30	8	3.0	--	--
05S.13W.27.422 FARR CATT	79-08-30	2	2.0	--	--
05S.13W.32.322	79-06-13	--	--	--	--
05S.14W.09.412 SATO LEE	79-08-23	5	.0	--	--
05S.16W.03.143 TULAROSA	78-11-29	1	.0	1	0
06S.13W.11.243 WEST FULL	79-08-30	30	--	--	--
06S.13W.11.244 EAST FULL	79-08-30	20	--	--	--
06S.13W.20.122 OLD FARR	79-08-30	20	--	--	--
06S.14W.07.334 YORK HDQS	79-08-22	3	.0	2	--
06S.14W.08.333 LEE YORK	79-08-22	20	--	--	--
06S.14W.21.433 LEE YORK	79-08-30	0	3.2	--	--
06S.15W.20.211B YORK DUG	79-08-22	50	2.3	--	--
07S.12W.03.424 CHIMNEY W	79-07-11	2	.0	--	--
07S.14W.16.133 HQ LASSIT	79-08-22	0	.1	--	--
07S.15W.34.213 Y CANYON	79-08-22	0	.2	--	--
08S.13W.16.211 TRIANGLE	79-08-23	0	.0	--	--
08S.13W.18.131 MAIN WELL	79-08-23	0	.2	--	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CATRON COUNTY - Continued

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
01N.20W.27.2 RED HILL LA	341730108550001	003	GW	79-09-28	--	18	7.3	6.8	--
02N.15W.05 MARIANO SPRIN	342545108252001	003	SP	79-08-03	--	16	5.4	4.9	5.0
02N.20W.29.41 GOAT SPRIN	342200108571001	003	SP	79-08-05	--	42	6.6	6.0	8.1
03N.18W.22.13 JERRY WELL	342830108423001	003	GW	79-07-17	1630	<9.0	<2.9	<2.6	<5
03S.09W.07.442 LUTZ WELL	340326107481801	003	GW	79-08-30	1100	<3.2	3.3	3.4	1.6
03S.09W.28.243 NEW WELL	340115107461701	003	GW	79-08-02	1400	6.0	2.1	1.9	1.5
04N.19W.25.424 PUEBLO WI	343220108470001	003	GW	79-08-04	--	67	30	27	1.2
04S.09W.06.212 AKE HDQS	335937107483301	003	GW	79-08-21	1840	9.7	3.2	3.0	4.3
04S.09W.08.132 ESPANOL W	335835107475001	003	GW	79-07-13	--	26	4.7	4.4	--
04S.09W.17.311 C BAR N	335727107480501	003	GW	79-07-13	--	12	2.7	2.5	5.5
04S.10W.05.333 PLAINS WE	335859107542401	003	GW	79-08-29	2000	4.2	3.2	3.3	1.8
04S.12W.29.122	335617108065501	003	GW	79-07-11	--	7.7	5.5	5.0	3.2
05S.10W.09.232 HARRIET M	335321107523901	003	GW	79-08-29	1500	<7.7	6.0	5.5	1.4
05S.12W.09.434 DAVE FARR	335248108052901	003	GW	79-08-30	1615	<3.8	3.6	3.3	1.8
05S.12W.34.434A ED FARR	334925108043201	003	GW	79-07-12	--	<4.0	2.9	2.7	--
05S.13W.04.241 FARR CATT	335416108114201	003	GW	79-08-30	1830	7.9	15	2.9	3.3
05S.13W.22.112 FARR CATT	335155108112101	003	GW	79-08-30	1730	<20	<7.5	<7.0	3.0
05S.13W.27.422 FARR CATT	335037108102901	003	GW	79-08-30	1800	<18	<6.1	<5.7	2.1
05S.14W.09.412 SATO LEE	335311108180801	003	SP	79-08-23	1130	<1.6	4.8	4.6	.8
05S.16W.03.143 TULAROSA	335407108295801	003	SP	78-11-29	1200	--	--	--	1.9
06S.14W.07.334 YORK HDQS	334748108193801	003	GW	79-08-22	2000	<4.5	3.1	2.8	1.4
06S.14W.21.433 LEE YORK	334602108171201	003	GW	79-08-30	1130	5.9	5.3	4.9	1.6
06S.15W.20.211B YORK DUG	334649108343301	003	GW	79-08-22	1230	<2.4	5.5	4.9	<.5
07S.12W.03.424 CHIMNEY W	334347108032601	003	GW	79-07-11	--	31	5.3	4.8	--
07S.14W.16.133 HQ LASSIT	334210108175101	003	GW	79-08-22	1200	<2.4	5.6	5.7	<.5
07S.15W.34.213 Y CANYON	333946108222301	003	GW	79-08-22	1630	7.4	6.7	6.3	1.7
08S.13W.16.211 TRIANGLE	333718108110201	003	GW	79-08-23	1445	<3.6	4.4	4.5	1.1
08S.13W.18.131 MAIN WELL	333403108134501	003	GW	79-08-23	1545	14	7.2	6.7	3.2

CHAVES COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	SAMP- LING DEPTH (FT) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)
11N.25W.36.14234	331857104211202	005	GW	79-07-11	1550	110AVMB	--	5.0	--
11N.25W.36.14234	331857104211201	005	GW	79-07-19	0935	110AVMB	--	16	--
11S.25E.36.144 GW SAMPLE	331855104212101	005	GW	79-04-03	1400	110AVMB	4.6	--	--
11S.25E.36.213 PVACD-1	331905104211201	005	GW	79-04-04	0900	110AVMB	--	233	.25

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)
11N.25W.36.14234	79-07-19	22000	7.3	7000	6200	340	1500	3200	17	3200
11N.25W.36.14234	79-07-19	15700	7.4	5800	5200	360	1200	2100	12	2100
11S.25E.36.144 GW SAMPLE	79-04-03	17300	7.1	6000	5300	240	1300	2500	14	--
11S.25E.36.213 PVACD-1	79-04-04	2640	7.5	1800	1700	590	91	26	.3	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

CHAVES COUNTY - Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)
11N.25W.36.14234	79-07-11	7.2	780	6100	4900	2.9	13
11N.25W.36.14234	79-07-19	8.4	650	5500	3000	2.5	27
11S.25E.36.144 GW SAMPLE	79-04-03	5.4	700	5500	3700	2.4	12
11S.25E.36.213 PVACD-1	79-04-04	1.6	140	1700	20	1.1	13

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
11N.25W.36.14234	79-07-11	16500	.11	110	40
11N.25W.36.14234	79-07-19	12600	.27	350	2300
11S.25E.36.144 GW SAMPLE	79-04-03	13700	.26	50	800
11S.25E.36.213 PVACD-1	79-04-04	2530	.00	20	50

COLFAX COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)
29N.27E.16.412	364454104040401	007	GW	79-09-17	1500	110AVMB	83.00	94	368

LOCAL IDENT-I-FIER	DATE OF SAMPLE	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM+ POTAS-SIUM DIS-SOLVED (MG/L AS NA) (00933)
29N.27E.16.412	79-09-17	7.6	14.0	160	0	40	14	25	.9	27

LOCAL IDENT-I-FIER	DATE OF SAMPLE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)
29N.27E.16.412	79-09-17	2.3	180	19	3.5	.5	28	<246	1.1	2

LOCAL IDENT-I-FIER	DATE OF SAMPLE	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
29N.27E.16.412	79-09-17	100	0	10	7	10	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

COLFAX COUNTY - Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGANESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELENIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
29N.27E.16.412	79-09-17	0	1.1	2	0

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)
29N.27E.16.412	364454104040401	007	GW	79-09-17	1500	7.6	11	12	.12

STATION NUMBER	DATE OF SAMPLE	TIME	COUNTY	PCB, TOTAL (UG/L) (39516)	ALDRIN, TOTAL (UG/L) (39330)	CHLOR-DANE, TOTAL (UG/L) (39350)	DDD, TOTAL (UG/L) (39360)	DDE, TOTAL (UG/L) (39365)	DDT, TOTAL (UG/L) (39370)	DI-ELDRIN TOTAL (UG/L) (39380)	ENDO-SULFAN, TOTAL (UG/L) (39388)
364454104040401	79-09-17	1500	007	.0	.00	.0	.00	.00	.00	.00	.00

STATION NUMBER	DATE OF SAMPLE	ENDRIN, TOTAL (UG/L) (39390)	HEPTA-CHLOR, TOTAL (UG/L) (39410)	HEPTA-CHLOR EPOXIDE TOTAL (UG/L) (39420)	LINDANE TOTAL (UG/L) (39340)	METH-OXY-CHLOR, TOTAL (UG/L) (39480)	TOX-APHENE, TOTAL (UG/L) (39400)	2,4-D, TOTAL (UG/L) (39730)	2,4,5-T TOTAL (UG/L) (39740)
364454104040401	79-09-17	.00	.00	.00	.00	.00	0	.00	.00

STATION NUMBER	DATE OF SAMPLE	SILVEX, TOTAL (UG/L) (39760)	PER-THANE TOTAL (UG/L) (39034)	MIREX, TOTAL (UG/L) (39755)
364454104040401	79-09-17	.00	.00	.00

DONA ANA COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAMP-LING DEPTH (FT) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)
19S.05E.17.331 MAR-1	323906106472301	013	GW	79-02-16	1005	110BLSN	214.01	--	550
19S.05E.17.334 MAR-2	323857106273201	013	GW	79-02-16	1010	110BLSN	219.65	--	650
21S.04E.23.233 HTA-1	322801106300801	013	GW	79-02-16	1335	000IRSV	--	--	250
21S.05E.16.132 SMAR-1	322856106262701	013	GW	79-02-16	1140	110BLSN	303.59	--	473
21S.05E.27.113	322732106253201	013	GW	79-02-22	1200	110BLSN	--	--	--
21S.05E.32.222 T-13	322635106264401	013	GW	79-02-22	--	110BLSN	--	--	522
22S.04E.11.224 T-8	322434106295001	013	GW	79-08-07	1430	110BLSN	580.25	915	1060
22S.04E.12.214 SW-20	322446106290801	013	GW	79-02-16	1030	110BLSN	508.09	--	838
22S.04E.12.414 SW-19	322424106290301	013	GW	79-02-16	1145	110BLSN	448.85	--	800
22S.04E.12.434 SW-18	322405106290101	013	GW	79-02-16	1150	110BLSN	421.59	--	800

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DONA ANA COUNTY - Continued

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAMP-LING DEPTH (FT) (00003)	DEPTH OF WELL, TOTAL (FEET) (72008)
22S.04E.13.241 SW-17	322347106285801	013	GW	79-02-16	1200	110BLSN	433.28	--	900
22S.04E.13.311 SW-13	322331106293801	013	GW	79-02-16	1335	110BLSN	297.29	--	534
22S.04E.13.424 SW-15	322333106284901	013	GW	79-02-16	1215	110BLSN	429.60	--	820
22S.04E.13.432 SW-16	322325106290401	013	GW	79-02-16	1325	110BLSN	437.60	--	890
22S.04E.24.112 SW-11	322310106293401	013	GW	79-02-16	1345	110BLSN	274.40	--	500
22S.04E.24.212A SW-10A	322309106290201	013	GW	79-02-16	1350	110BLSN	424.04	--	805
22S.05E.07.342 T-7	322415106281801	013	GW	79-08-07	0930	110BLSN	371.42	444	1000
		013	GW	79-08-07	1010	110BLSN	371.42	840	1000
22S.05E.16.111 T-4	322403106263901	013	GW	79-08-08	1215	110BLSN	325.00	325	331
22S.05E.19.141 SW-22	322256106282601	013	GW	79-02-16	1000	110BLSN	374.97	--	735
		013	GW	79-08-09	--	110BLSN	411.32	--	--
22S.05E.19.323 SW-21	322237106282801	013	GW	79-02-16	0945	110BLSN	361.63	--	700
22S.05E.20.111 T-5	322311106274101	013	GW	79-08-08	1115	110BLSN	279.89	330	351

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
19S.05E.17.331 MAR-1	79-02-16	883	7.6	--	--	--	--	--	--	--
19S.05E.17.334 MAR-2	79-02-16	780	7.7	--	350	140	73	41	36	.8
21S.04E.23.233 HTA-1	79-02-16	695	7.6	--	--	--	--	--	--	--
21S.05E.16.132 SMAR-1	79-02-16	785	7.6	--	--	--	--	--	--	--
21S.05E.27.113	79-02-22	660	7.8	--	240	130	74	14	45	1.3
21S.05E.32.222 T-13	79-02-22	498	7.7	--	170	53	51	11	34	1.1
22S.04E.11.224 T-8	79-08-07	647	7.7	27.0	230	120	58	20	46	1.3
22S.04E.12.214 SW-20	79-02-16	558	7.7	--	--	--	--	--	--	--
22S.04E.12.414 SW-19	79-02-16	400	8.0	--	140	18	41	8.6	29	1.1
22S.04E.12.434 SW-18	79-02-16	380	7.8	--	--	--	--	--	--	--
22S.04E.13.241 SW-17	79-02-16	386	8.1	--	120	18	38	5.5	40	1.6
22S.04E.13.311 SW-13	79-02-16	609	7.3	--	--	--	--	--	--	--
22S.04E.13.424 SW-15	79-02-16	351	7.9	--	110	2	35	5.9	30	1.2
22S.04E.13.432 SW-16	79-02-16	414	7.5	--	150	53	45	9.0	27	1.0
22S.04E.24.112 SW-11	79-02-16	671	7.4	--	--	--	--	--	--	--
22S.04E.24.212A SW-10A	79-02-16	318	7.6	--	--	--	--	--	--	--
22S.05E.07.342 T-7	79-08-07	349	7.7	27.0	100	2	33	4.7	38	1.6
	79-08-07	421	7.9	27.5	110	14	29	10	48	2.0
22S.05E.16.111 T-4	79-08-08	279	8.2	26.5	79	14	25	4.0	25	1.2
22S.05E.19.141 SW-22	79-02-16	351	8.2	--	--	--	--	--	--	--
	79-08-09	359	8.0	--	100	2	33	4.6	35	1.5
22S.05E.19.323 SW-21	79-02-16	279	7.5	--	--	--	--	--	--	--
22S.05E.20.111 T-5	79-08-08	361	8.0	27.0	110	27	34	6.4	28	1.2

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SODIUM+ POTAS-SIUM DIS-SOLVED (MG/L AS NA) (00933)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)
19S.05E.17.331 MAR-1	79-02-16	--	--	--	--	--	--	--	--	--
19S.05E.17.334 MAR-2	79-02-16	--	2.5	210	180	33	.3	20	518	.93
21S.04E.23.233 HTA-1	79-02-16	--	--	--	--	--	4.6	--	--	--
21S.05E.16.132 SMAR-1	79-02-16	--	--	--	--	--	--	--	--	--
21S.05E.27.113	79-02-22	--	3.8	110	140	.1	2.3	31	387	2.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

DONA ANA COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)
21S.05E.32.222 T-13	79-02-22	--	3.6	120	94	26	.9	35	336	1.9
22S.04E.11.224 T-8	79-08-07	50	3.7	110	140	38	.7	31	411	1.7
22S.04E.12.214 SW-20	79-02-16	--	--	--	--	--	--	--	--	--
22S.04E.12.414 SW-19	79-02-16	--	2.2	120	65	16	.4	38	277	1.1
22S.04E.12.434 SW-18	79-02-16	--	--	--	--	--	--	--	--	--
22S.04E.13.241 SW-17	79-02-16	--	2.1	100	72	18	.5	32	273	1.1
22S.04E.13.311 SW-13	79-02-16	--	--	--	--	--	--	--	--	--
22S.04E.13.424 SW-15	79-02-16	--	2.1	110	55	.1	.4	37	235	.79
22S.04E.13.432 SW-16	79-02-16	--	2.4	96	55	25	.4	40	274	2.7
22S.04E.24.112 SW-11	79-02-16	--	--	--	--	--	--	--	--	9.2
22S.04E.24.212A SW-10A	79-02-16	--	--	--	--	--	--	--	--	--
22S.05E.07.342 T-7	79-08-07	40	2.4	100	47	19	.3	32	245	1.9
	79-08-07	51	2.6	100	72	28	.4	34	291	1.5
22S.05E.16.111 T-4	79-08-08	28	2.5	65	47	15	.3	26	189	1.2
22S.05E.19.141 SW-22	79-02-16	--	--	--	--	--	--	--	--	--
	79-08-09	37	2.3	100	61	9.5	.3	35	245	.92
22S.05E.19.323 SW-21	79-02-16	--	--	--	--	--	--	--	--	--
22S.05E.20.111 T-5	79-08-08	31	2.5	84	63	18	.3	35	249	2.6

LOCAL IDENT- I- FIER	DATE OF SAMPLE	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
19S.05E.17.331 MAR-1	79-02-16	--	--	--	--
19S.05E.17.334 MAR-2	79-02-16	.70	80	0	60
21S.04E.23.233 HTA-1	79-02-16	--	--	--	--
21S.05E.16.132 SMAR-1	79-02-16	--	--	--	--
21S.05E.27.113	79-02-22	.00	70	10	10
21S.05E.32.222 T-13	79-02-22	.01	70	0	0
22S.04E.11.224 T-8	79-08-07	.00	50	0	30
22S.04E.12.214 SW-20	79-02-16	--	--	--	--
22S.04E.12.414 SW-19	79-02-16	.00	30	0	0
22S.04E.12.434 SW-18	79-02-16	--	--	--	--
22S.04E.13.241 SW-17	79-02-16	.00	40	0	0
22S.04E.13.311 SW-13	79-02-16	--	--	--	--
22S.04E.13.424 SW-15	79-02-16	.02	30	10	0
22S.04E.13.432 SW-16	79-02-16	.03	50	10	10
22S.04E.24.112 SW-11	79-02-16	--	--	--	--
22S.04E.24.212A SW-10A	79-02-16	--	--	--	--
22S.05E.07.342 T-7	79-08-07	.01	60	0	0
	79-08-07	.00	30	10	0
22S.05E.16.111 T-4	79-08-08	.00	50	30	<1
22S.05E.19.141 SW-22	79-02-16	--	--	--	--
	79-08-09	.01	40	0	0
22S.05E.19.323 SW-21	79-02-16	--	--	--	--
22S.05E.20.111 T-5	79-08-08	.00	30	20	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

EDDY COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAMP- LING DEPTH (FT) (00003)	DEPTH OF WELL, TOTAL (FEET) (7200.)
22S.31E.15.2244 H-5A	322342103452401	015	GW	78-12-14	1420	310MGNT	--	--	--
22S.31E.15.2244 H-5B	322342103452402	015	GW	78-12-10	1205	312CLBR	--	900	--
		015	GW	78-12-19	1355	312CLBR	--	--	--
22S.31E.15.2244 H-5C	322342103452403	015	GW	79-05-16	0855	312RSLRL	--	1060	--
22S.31E.18.111 H-6A	322352103503601	015	GW	78-12-15	1510	310MGNT	--	--	--
		015	GW	78-12-20	0940	310MGNT	--	--	--
22S.31E.18.111 H-6B	322352103503602	015	GW	78-12-18	1245	312CLBR	--	625	--
		015	GW	78-12-20	1150	312CLBR	--	626	--
22S.31E.18.111 H-6C	322352103503603	015	GW	79-04-09	1200	312RSLRL	--	--	--
22S.31E.26.4434 P-18	322121103405501	015	GW	79-05-11	1330	312RSLRL	--	650	--
22S.31E.29.1232 H-2B	322205103480702	015	GW	79-02-17	--	312CLBR	350.00	--	661
22S.31E.29.1232 H-2C	322205103480703	015	GW	79-02-24	1110	312RSLRL	--	710	--
22S.31E.29.2213 H-1	322204103474001	015	GW	79-03-13	1100	312CLBR	--	634	--
22S.31E.29.4224 H-3	322136103473001	015	GW	79-05-10	0900	310MGNT	--	--	--
22S.31E.31.3331P15	322031103492801	015	GW	79-04-03	1200	312RSLRL	--	--	--
		015	GW	79-04-11	0930	312CLBR	--	--	--
23S.31E.04.3134 P-17	321557103472301	015	GW	79-05-11	1000	312RSLRL	--	640	--
23S.31E.05.1123 H-4C	322023103482003	015	GW	79-03-16	1200	312RSLRL	--	663	--
23S.31E.5.1123 H-4A	322023103482001	015	GW	78-12-05	1110	310MGNT	--	--	--
		015	GW	78-12-14	1105	310MGNT	--	--	--
		015	GW	78-12-14	1120	310MGNT	--	--	--
23S.31E.5.1123 H-4B	322023103482002	015	GW	78-12-05	0840	312CLBR	--	--	--
		015	GW	78-12-12	1310	312CLBR	--	500	--
		015	GW	78-12-14	1210	312CLBR	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	DEPTH OF HOLE, TOTAL (FEET) (72001)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
22S.31E.15.2244 H-5A	78-12-14	--	--	--	8570	7.8	--	1300	1300	240
22S.31E.15.2244 H-5B	78-12-10	--	--	920	156000	8.9	--	--	--	--
	78-12-19	--	--	--	159000	6.8	--	8700	8700	360
22S.31E.15.2244 H-5C	79-05-16	--	--	--	213700	--	24.0	340000	340000	2100
22S.31E.18.111 H-6A	78-12-15	--	--	--	5370	5.7	--	--	--	--
	78-12-20	--	--	--	6070	7.3	--	2000	2000	520
22S.31E.18.111 H-6B	78-12-18	--	--	626	72900	7.1	--	--	--	--
	78-12-20	--	--	--	71800	7.3	--	7000	6900	1200
22S.31E.18.111 H-6C	79-04-09	--	--	--	--	--	--	97000	97000	4200
22S.31E.26.4434 P-18	79-05-11	--	--	--	262500	--	23.5	180000	180000	10000
22S.31E.29.1232 H-2B	79-02-17	661	611	--	10300	7.9	--	2100	2100	640
22S.31E.29.1232 H-2C	79-02-24	--	--	--	173000	--	20.5	350000	350000	31000
22S.31E.29.2213 H-1	79-03-13	--	--	--	22000	--	22.0	3400	3300	830
22S.31E.29.4224 H-3	79-05-10	--	--	--	40000	--	21.5	6000	6000	1100
22S.31E.31.3331P15	79-04-03	--	--	--	--	--	--	3400	3300	770
	79-04-11	--	--	--	--	--	--	3100	3000	780
23S.31E.04.3134 P-17	79-05-11	--	--	--	270000	--	21.5	200000	200000	15000
23S.31E.05.1123 H-4C	79-03-16	--	--	--	300000	--	20.5	130000	130000	8300
23S.31E.5.1123 H-4A	78-12-05	--	--	415	27900	7.3	--	--	--	--
	78-12-14	--	--	390	29700	8.0	--	--	--	--
	78-12-14	--	--	--	29800	8.0	--	2200	2100	210
23S.31E.5.1123 H-4B	78-12-05	--	--	529	26800	8.1	--	--	--	--
	78-12-12	--	--	529	28500	7.5	--	--	--	--
	78-12-14	--	--	--	27100	7.6	--	2200	2200	180

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

EDDY COUNTY - Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM+ POTAS-SIUM DIS-SOLVED (MG/L AS NA) (00933)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
22S.31E.15.2244 H-5A	78-12-14	170	1500	18	--	53	50	--	41	3200
22S.31E.15.2244 H-5B	78-12-10	--	--	--	--	--	--	--	--	--
	78-12-19	1900	53000	247	--	1400	41	--	34	810
22S.31E.15.2244 H-5C	79-05-16	82000	14000	10	35000	21000	300	--	246	2000
22S.31E.18.111 H-6A	78-12-15	--	--	--	--	--	--	--	--	--
	78-12-20	160	1100	11	--	46	51	--	42	2700
22S.31E.18.111 H-6B	78-12-18	--	--	--	--	--	--	--	--	--
	78-12-20	970	18000	94	--	500	--	--	85	3800
22S.31E.18.111 H-6C	79-04-09	21000	80000	112	88000	8000	--	--	1	2000
22S.31E.26.4434 P-18	79-05-11	37000	40000	50	60000	12000	--	--	400	480
22S.31E.29.1232 H-2B	79-02-17	120	1600	15	--	93	30	--	25	2500
22S.31E.29.1232 H-2C	79-02-24	66000	12000	8.8	18000	6400	--	--	920	--
22S.31E.29.2213 H-1	79-03-13	310	4100	31	4500	430	--	--	60	2600
22S.31E.29.4224 H-3	79-05-10	800	9000	50	11000	1500	--	--	28	4400
22S.31E.31.3331P15	79-04-03	350	24000	180	25000	1400	--	--	45	2800
	79-04-11	280	29000	227	36000	7200	--	--	100	7000
23S.31E.04.3134 P-17	79-05-11	40000	23000	22	32000	8800	--	--	650	1200
23S.31E.05.1123 H-4C	79-03-16	27000	66000	79	75000	8600	1	0	1	1400
23S.31E.5.1123 H-4A	78-12-05	--	--	--	--	--	--	--	--	--
	78-12-14	--	--	--	--	--	--	--	--	--
	78-12-14	410	7000	65	--	130	63	--	52	7000
23S.31E.5.1123 H-4B	78-12-05	--	--	--	--	--	--	--	--	--
	78-12-12	--	--	--	--	--	--	--	--	--
	78-12-14	430	5800	54	--	180	59	--	48	4000

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)
22S.31E.15.2244 H-5A	78-12-14	880	2.8	9.0	6090	.01	.00	.6	0	0
22S.31E.15.2244 H-5B	78-12-10	--	--	--	--	--	--	--	--	--
	78-12-19	86000	1.4	2.1	144000	.01	.29	2.4	1	0
22S.31E.15.2244 H-5C	79-05-16	290000	.0	1.6	412000	--	--	--	--	--
22S.31E.18.111 H-6A	78-12-15	--	--	--	--	--	--	--	--	--
	78-12-20	1200	1.4	7.7	5760	.03	.00	5.4	0	0
22S.31E.18.111 H-6B	78-12-18	--	--	--	--	--	--	--	--	--
	78-12-20	28000	1.5	8.5	52600	.02	.08	23	0	0
22S.31E.18.111 H-6C	79-04-09	200000	1.0	1.4	316000	--	--	--	--	--
22S.31E.26.4434 P-18	79-05-11	220000	.0	9.0	328000	.02	--	60	--	--
22S.31E.29.1232 H-2B	79-02-17	2300	1.4	.3	7270	--	--	--	--	--
22S.31E.29.1232 H-2C	79-02-24	280000	.0	2.6	396000	--	--	--	--	--
22S.31E.29.2213 H-1	79-03-13	7300	.0	1.3	15600	--	--	--	0	0
22S.31E.29.4224 H-3	79-05-10	16000	1.0	2.3	32800	.20	.00	23	0	100
22S.31E.31.3331P15	79-04-03	38000	1.3	1.3	67400	--	--	--	0	0
	79-04-11	48000	1.6	.6	92300	--	--	--	--	--
23S.31E.04.3134 P-17	79-05-11	180000	3.8	15	269000	.04	--	7.0	--	--
23S.31E.05.1123 H-4C	79-03-16	210000	1.7	1.3	322000	.27	.12	150	--	--
23S.31E.5.1123 H-4A	78-12-05	--	--	--	--	--	--	--	--	--
	78-12-14	--	--	--	--	--	--	--	--	--
	78-12-14	7500	2.5	6.4	22300	.01	.00	2.6	0	0
23S.31E.5.1123 H-4B	78-12-05	--	--	--	--	--	--	--	--	--
	78-12-12	--	--	--	--	--	--	--	--	--
	78-12-14	7500	1.9	5.2	18100	.02	.00	2.5	0	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

EDDY COUNTY - Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
22S.31E.15.2244 H-5A	78-12-14	11000	0	10	1	0	40	0
22S.31E.15.2244 H-5B	78-12-10	--	--	--	--	--	--	--
	78-12-19	36000	--	100	2	7	140	14
22S.31E.15.2244 H-5C	79-05-16	67000	0	360	0	50	78000	6
22S.31E.18.111 H-6A	78-12-15	--	--	--	--	--	--	--
	78-12-20	2500	2	10	2	1	40	0
22S.31E.18.111 H-6B	78-12-18	--	--	--	--	--	--	--
	78-12-20	9500	1	50	3	5	16	16
22S.31E.18.111 H-6C	79-04-09	200000	0	240	0	200	110000	3800
22S.31E.26.4434 P-18	79-05-11	160000	0	2000	4	14	74000	810
22S.31E.29.1232 H-2B	79-02-17	3900	--	--	--	--	140	--
22S.31E.29.1232 H-2C	79-02-24	76000	0	480	0	48	45000	40
22S.31E.29.2213 H-1	79-03-13	1600	6	20	0	1	80	44
22S.31E.29.4224 H-3	79-05-10	4500	3	30	0	160	130	2
22S.31E.31.3331P15	79-04-03	3700	880	40	3	9	380	8
	79-04-11	5200	3	80	0	650	720	8
23S.31E.04.3134 P-17	79-05-11	880	9	240	3	200	2300	1500
23S.31E.05.1123 H-4C	79-03-16	360000	0	320	0	280	20000	10
23S.31E.5.1123 H-4A	78-12-05	--	--	--	--	--	--	--
	78-12-14	--	--	--	--	--	--	--
	78-12-14	19000	0	20	1	1	30	0
23S.31E.5.1123 H-4B	78-12-05	--	--	--	--	--	--	--
	78-12-12	--	--	--	--	--	--	--
	78-12-14	19000	1	20	1	1	30	1

LOCAL IDENT-I-FIER	DATE OF SAMPLE	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)
22S.31E.15.2244 H-5A	78-12-14	160	.1	0	0
22S.31E.15.2244 H-5B	78-12-10	--	--	--	--
	78-12-19	380	.0	0	1
22S.31E.15.2244 H-5C	79-05-16	280000	--	1	0
22S.31E.18.111 H-6A	78-12-15	--	--	--	--
	78-12-20	330	.0	0	0
22S.31E.18.111 H-6B	78-12-18	--	--	--	--
	78-12-20	600	--	2	1
22S.31E.18.111 H-6C	79-04-09	19000	--	1	0
22S.31E.26.4434 P-18	79-05-11	50000	--	1	0
22S.31E.29.1232 H-2B	79-02-17	--	--	--	--
22S.31E.29.1232 H-2C	79-02-24	340000	--	1	0
22S.31E.29.2213 H-1	79-03-13	2200	.1	0	0
22S.31E.29.4224 H-3	79-05-10	510	.0	0	0
22S.31E.31.3331P15	79-04-03	9900	.0	0	0
	79-04-11	1800	.0	3	0
23S.31E.04.3134 P-17	79-05-11	140000	--	1	0
23S.31E.05.1123 H-4C	79-03-16	80000	--	3	0
23S.31E.5.1123 H-4A	78-12-05	--	--	--	--
	78-12-14	--	--	--	--
	78-12-14	300	.0	0	0
23S.31E.5.1123 H-4B	78-12-05	--	--	--	--
	78-12-12	--	--	--	--
	78-12-14	430	.1	0	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

EDDY COUNTY - Continued

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)
22S.31E.15.2244 H-5A	322342103452401	015	GW	78-12-14	1420	160	--	53	--
22S.31E.15.2244 H-5B	322342103452402	015	GW	78-12-19	1355	4000	--	1100	--
22S.31E.15.2244 H-5C	322342103452403	015	GW	79-05-16	0855	<19000	1.1	15000	.6
22S.31E.18.111 H-6A	322352103503601	015	GW	78-12-20	0940	110	--	43	--
22S.31E.18.111 H-6B	322352103503602	015	GW	78-12-20	1150	<1200	--	<420	--
22S.31E.18.111 H-6C	322352103503603	015	GW	79-04-09	1200	<11000	1.3	6800	<.7
22S.31E.26.4434 P-18	322121103405501	015	GW	79-05-11	1330	<13000	<.4	9800	<.4
22S.31E.29.1232 H-2C	322205103480703	015	GW	79-02-24	1110	<17000	2.7	19000	.5
22S.31E.29.2213 H-1	322204103474001	015	GW	79-03-13	1100	<290	<.4	410	<.4
22S.31E.29.4224 H-3	322136103473001	015	GW	79-05-10	0900	<620	.4	1300	.4
22S.31E.31.3331P15	322031103492801	015	GW	79-04-03	1200	<1500	<.4	1300	<.4
		015	GW	79-04-11	0930	<1900	<.4	4700	<.4
23S.31E.04.3134 P-17	321557103472301	015	GW	79-05-11	1000	<11000	10	13000	2.8
23S.31E.05.1123 H-4C	322023103482003	015	GW	79-03-16	1200	<11000	4.9	8900	<.4
23S.31E.5.1123 H-4A	322023103482001	015	GW	78-12-14	1120	<320	--	<100	--
23S.31E.5.1123 H-4B	322023103482002	015	GW	78-12-14	1210	720	--	310	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
22S.31E.15.2244 H-5A	78-12-14	48	--	17	1.0
22S.31E.15.2244 H-5B	78-12-19	1000	--	290	1.0
22S.31E.15.2244 H-5C	79-05-16	14000	.6	310	<.04
22S.31E.18.111 H-6A	78-12-20	39	--	11	6.7
22S.31E.18.111 H-6B	78-12-20	<390	--	6.6	4.3
22S.31E.18.111 H-6C	79-04-09	6200	<.7	280	<.04
22S.31E.26.4434 P-18	79-05-11	8800	<.4	11	.05
22S.31E.29.1232 H-2C	79-02-24	17000	.5	510	.34
22S.31E.29.2213 H-1	79-03-13	390	<.4	1.7	.16
22S.31E.29.4224 H-3	79-05-10	1200	.4	10	.24
22S.31E.31.3331P15	79-04-03	1200	<.4	.59	.08
	79-04-11	4300	<.4	11	2.2
23S.31E.04.3134 P-17	79-05-11	12000	2.5	340	<.02
23S.31E.05.1123 H-4C	79-03-16	8100	<.4	340	1.2
23S.31E.5.1123 H-4A	78-12-14	<92	--	9.3	.08
23S.31E.5.1123 H-4B	78-12-14	290	--	67	2.9

LEA COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	SAMP- LING DEPTH (FT) (00003)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)
21S.32E.31.2332 AEC-7	322610103424201	025	GW	79-04-27	1500	313BLCN	--	160000	6.4
		025	GW	79-04-28	1700	313BLCN	4714	--	--
23S.35E.18.1434 WIPP-15	321817103250001	025	GW	79-03-12	1400	110AVMB	--	1900	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

LEA COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)
21S.32E.31.2332 AEC-7	79-04-27	23.0	30000	30000	8900	2000	56000	140	56000	.6
	79-04-28	32.2	35000	35000	9700	2600	55000	128	56000	970
23S.35E.18.1434 WIPP-15	79-03-12	18.0	420	0	35	81	300	6.4	320	19

LOCAL IDENT- I- FIER	DATE OF SAMPLE	BICAR- BONATE (MG/L AS HCO3) (00440)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)
21S.32E.31.2332 AEC-7	79-04-27	62	51	1700	110000	.2	3.7	179000	6	--
	79-04-28	--	43	1800	110000	1.4	14	180000	--	--
23S.35E.18.1434 WIPP-15	79-03-12	--	810	170	93	2.0	35	1220	--	100

LOCAL IDENT- I- FIER	DATE OF SAMPLE	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
21S.32E.31.2332 AEC-7	79-04-27	77000	3	240	5	740	3000	2600
	79-04-28	70000	10	160	3	790	1800	3200
23S.35E.18.1434 WIPP-15	79-03-12	1000	7	0	2	1	80	63

LOCAL IDENT- I- FIER	DATE OF SAMPLE	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	SILVER, DIS- SOLVED (UG/L AS AG) (01075)
21S.32E.31.2332 AEC-7	79-04-27	4200	--	0	0
	79-04-28	4600	--	1	0
23S.35E.18.1434 WIPP-15	79-03-12	260	.0	1	0

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)
21S.32E.31.2332 AEC-7	322610103424201	025	GW	79-04-27	1500	<5800	2.8	<2300	.9
		025	GW	79-04-28	1700	<5800	<.4	<2400	<.4
23S.35E.18.1434 WIPP-15	321817103250001	025	GW	79-03-12	1400	<34	<.4	27	.5

LOCAL IDENT- I- FIER	DATE OF SAMPLE	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)	RADIUM 226, DIS- SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM DIS- SOLVED, EXTRAC- TION (UG/L) (80020)
21S.32E.31.2332 AEC-7	79-04-27	<2100	.9	120	.52
	79-04-28	<2200	<.4	75	.29
23S.35E.18.1434 WIPP-15	79-03-12	25	.6	.21	3.4

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

MCKINLEY COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH TO BOT- TOM OF WATER- BEARING ZONE (FT) (72003)	DEPTH TO TOP OF WATER- BEARING ZONE (FT) (72002)
09N.17W.33.3242 WINDMILL	345751108380801	031	GW	79-06-20	1235	110AVMB	35.10	--	--
09N.18W.16.242 SPRING CA	350046108435801	031	SP	79-04-06	1200	110AVMB	--	--	--
09N.18W.19.442 ONDELACY	345931108461201	031	GW	79-08-21	1041	231CHNL	--	--	--
09N.19W.01.231 DOWA YOLA	350228108474201	031	SP	79-04-05	1620	231CHNL	--	--	--
10N.17W.12.4314 LOWER PE	350626108345201	031	SP	79-06-18	1400	110AVMB	--	--	--
10N.17W.12.4424 UPPER PE	350626108342901	031	SP	79-06-18	1500	110AVMB	--	--	--
10N.20W.18.314 IRRIGATIO	350538108593601	031	GW	79-09-05	--	120CGLM	177.00	204	170
10N.20W.32.421 ECW 9	350309108575201	031	GW	79-09-04	1600	231CHNL	90.40	575	509
11N.20W.22.213 RWP 38	351022108560401	031	GW	79-09-05	--	221ZUNIS	227.10	--	--
19N.05W.03.222 DHOE4 COA	355446107204801	031	GW	79-07-24	1430	211FRLD	47.60	54	25
19N.05W.04.214 19R-302	355437107220101	031	GW	79-08-02	1215	211PCCF	47.90	128	43
19N.05W.04.333 DHOE2 PCC	355400107224201	031	GW	79-07-25	1145	211PCCF	50.32	233	102
19N.05W.05.221 DHOE5 OB	355447107224301	031	GW	79-07-25	1630	211FRLD	68.00	180	162
19N.05W.07.112 DHOE1 COA	355353107244501	031	GW	79-07-24	1015	211FRLD	57.48	60	10
20N.10W.16.4413	355811107534701	031	GW	79-08-20	1400	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. NGVD) (72000)	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN DEMAND, CHEM- ICAL (HIGH LEVEL) (MG/L) (00340)
09N.17W.33.3242 WINDMILL	79-06-20	40	--	--	7270.00	--	2900	6.8	14.0	--
09N.18W.16.242 SPRING CA	79-04-06	--	--	--	7190.00	--	362	--	17.0	--
09N.18W.19.442 ONDELACY	79-08-21	1230	--	--	7292.00	--	2650	8.9	14.0	--
09N.19W.01.231 DOWA YOLA	79-04-05	--	--	--	6390.00	--	500	--	16.5	--
10N.17W.12.4314 LOWER PE	79-06-18	--	--	--	6756.00	--	420	7.6	14.0	--
10N.17W.12.4424 UPPER PE	79-06-18	--	--	--	6780.00	--	410	7.7	14.5	--
10N.20W.18.314 IRRIGATIO	79-09-05	204	204	170	6503.00	3.3	360	8.4	17.5	--
10N.20W.32.421 ECW 9	79-09-04	575	575	509	6333.00	--	1540	8.3	28.5	--
11N.20W.22.213 RWP 38	79-09-05	500	--	--	7020.00	--	304	8.1	19.5	--
19N.05W.03.222 DHOE4 COA	79-07-24	54	--	--	6621.00	--	6800	12.4	14.0	49
19N.05W.04.214 19R-302	79-08-02	137	--	--	6624.00	--	2370	8.7	21.5	--
19N.05W.04.333 DHOE2 PCC	79-07-25	233	--	--	6640.00	--	4000	8.8	16.0	120
19N.05W.05.221 DHOE5 OB	79-07-25	182	--	--	6675.00	--	1900	9.0	16.0	30
19N.05W.07.112 DHOE1 COA	79-07-24	60	--	--	6693.00	--	4600	8.1	15.5	--
20N.10W.16.4413	79-08-20	4450	3988	3957	--	150	1580	8.4	23.5	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
09N.17W.33.3242 WINDMILL	79-06-20	1900	1600	500	150	160	1.6	160	3.6	--
09N.18W.16.242 SPRING CA	79-04-06	140	72	41	8.3	22	.8	33	11	--
09N.18W.19.442 ONDELACY	79-08-21	39	0	14	1.0	650	45	650	1.1	--
09N.19W.01.231 DOWA YOLA	79-04-05	120	0	36	8.0	39	1.5	41	1.8	--
10N.17W.12.4314 LOWER PE	79-06-18	160	0	42	14	43	1.5	--	3.2	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

MCKINLEY COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)
10N.17W.12.4424 UPPER PE	79-06-18	160	0	40	14	39	1.4	--	3.2	--
10N.20W.18.314 IRRIGATIO	79-09-05	150	43	53	4.9	25	.9	28	2.6	--
10N.20W.32.421 ECW 9	79-09-04	17	0	6.1	.5	350	37	350	2.2	--
11N.20W.22.213 RWP 38	79-09-05	110	0	32	8.2	24	1.0	25	1.2	--
19N.05W.03.222 DHOE4 COA	79-07-24	10	0	3.2	.4	750	105	760	9.8	--
19N.05W.04.214 19R-302	79-08-02	12	0	4.5	.2	620	78	620	2.0	996
19N.05W.04.333 DHOE2 PCC	79-07-25	28	0	8.4	1.5	930	78	940	6.2	840
19N.05W.05.221 DHOE5 OB	79-07-25	7	0	2.5	.2	550	90	550	2.7	860
19N.05W.07.112 DHOE1 COA	79-07-24	86	0	26	4.8	1200	57	1200	8.8	1500
20N.10W.16.4413	79-08-20	38	0	15	.2	370	26	370	2.3	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CAR- BONATE (MG/L AS CO3) (00445)	HY- DROXIDE ION (MG/L AS OH) (71830)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFIDE TOTAL (MG/L AS S) (00745)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)
09N.17W.33.3242 WINDMILL	79-06-20	--	--	260	--	1900	50	.3	8.8	--
09N.18W.16.242 SPRING CA	79-04-06	--	--	65	--	56	28	.1	6.0	--
09N.18W.19.442 ONDELACY	79-08-21	--	--	96	--	900	350	2.8	4.0	--
09N.19W.01.231 DOWA YOLA	79-04-05	--	--	180	--	14	22	.4	16	--
10N.17W.12.4314 LOWER PE	79-06-18	--	--	200	--	39	19	.3	35	--
10N.17W.12.4424 UPPER PE	79-06-18	--	--	200	--	35	10	.3	35	--
10N.20W.18.314 IRRIGATIO	79-09-05	--	--	110	--	23	34	.4	22	--
10N.20W.32.421 ECW 9	79-09-04	--	--	370	--	320	51	6.2	10	--
11N.20W.22.213 RWP 38	79-09-05	--	--	130	--	11	7.2	.3	21	--
19N.05W.03.222 DHOE4 COA	79-07-24	197	449	1620	1.4	24	69	2.2	16	1800
19N.05W.04.214 19R-302	79-08-02	35	--	880	--	490	40	6.1	8.6	1600
19N.05W.04.333 DHOE2 PCC	79-07-25	--	--	690	.7	380	700	3.5	8.2	2340
19N.05W.05.221 DHOE5 OB	79-07-25	39	--	770	.4	290	31	2.7	7.5	1200
19N.05W.07.112 DHOE1 COA	79-07-24	24	--	1270	--	--	--	--	--	--
20N.10W.16.4413	79-08-20	--	--	150	--	670	17	1.3	24	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) (00608)	NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) (00607)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)
09N.17W.33.3242 WINDMILL	79-06-20	2940	.86	--	--	--	--	--	--	--
09N.18W.16.242 SPRING CA	79-04-06	218	1.4	--	--	--	--	--	--	--
09N.18W.19.442 ONDELACY	79-08-21	1980	.02	--	--	--	--	--	--	--
09N.19W.01.231 DOWA YOLA	79-04-05	246	.21	--	--	--	--	--	--	--
10N.17W.12.4314 LOWER PE	79-06-18	319	.80	--	--	--	--	--	--	--
10N.17W.12.4424 UPPER PE	79-06-18	300	.82	--	--	--	--	--	--	--
10N.20W.18.314 IRRIGATIO	79-09-05	263	7.3	--	--	--	--	--	--	--
10N.20W.32.421 ECW 9	79-09-04	969	.11	--	--	--	--	--	--	--
11N.20W.22.213 RWP 38	79-09-05	189	1.4	--	--	--	--	--	--	--
19N.05W.03.222 DHOE4 COA	79-07-24	2500	.05	7.0	.00	.01	--	4600	1	0

MCKINELY COUNTY - Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, ORGANIC DIS-SOLVED (MG/L AS N) (00607)	PHOS-PHORUS, ORTHO, DIS-SOLVED (MG/L AS P) (00671)	CARBON, ORGANIC TOTAL (MG/L AS C) (00680)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)
19N.05W.04.214 19R-302	79-08-02	1700	--	--	--	--	--	--	0	0
19N.05W.04.333 DHOE2 PCC	79-07-25	2450	.01	.65	.00	.00	--	20	3	100
19N.05W.05.221 DHOE5 OB	79-07-25	1350	.05	.28	.00	.01	--	50	2	30
19N.05W.07.112 DHOE1 COA	79-07-24	--	.00	3.8	.90	.39	--	30	2	0
20N.10W.16.4413	79-08-20	1190	.01	--	--	.01	.5	--	5	0

LOCAL IDENT-I-FIER	DATE OF SAMPLE	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	CHRO-MIUM, HEXA-VALENT, DIS. (UG/L AS CR) (01032)	COBALT, DIS-SOLVED (UG/L AS CO) (01035)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)
09N.17W.33.3242 WINDMILL	79-06-20	--	--	--	--	--	--	--	3200	--
09N.18W.16.242 SPRING CA	79-04-06	--	--	--	--	--	--	--	20	--
09N.18W.19.442 ONDELACY	79-08-21	--	--	--	--	--	--	--	40	--
09N.19W.01.231 DOWA YOLA	79-04-05	--	--	--	--	--	--	--	<10	--
10N.17W.12.4314 LOWER PE	79-06-18	--	--	--	--	--	--	--	10	--
10N.17W.12.4424 UPPER PE	79-06-18	--	--	--	--	--	--	--	10	--
10N.20W.18.314 IRRIGATIO	79-09-05	--	--	--	--	--	--	--	20	--
10N.20W.32.421 ECW 9	79-09-04	--	--	--	--	--	--	--	40	--
11N.20W.22.213 RWP 38	79-09-05	--	--	--	--	--	--	--	60	--
19N.05W.03.222 DHOE4 COA	79-07-24	10	110	0	3	--	0	5	90	17
19N.05W.04.214 19R-302	79-08-02	--	820	--	--	--	--	--	20	0
19N.05W.04.333 DHOE2 PCC	79-07-25	10	740	1	1	--	0	2	20	17
19N.05W.05.221 DHOE5 OB	79-07-25	<1	320	<1	0	--	<3	2	0	1
19N.05W.07.112 DHOE1 COA	79-07-24	0	1100	0	0	--	1	0	110	0
20N.10W.16.4413	79-08-20	--	130	0	0	0	--	0	350	3

LOCAL IDENT-I-FIER	DATE OF SAMPLE	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)	MOLYB-DENUM, DIS-SOLVED (UG/L AS MO) (01060)	NICKEL, DIS-SOLVED (UG/L AS NI) (01065)	SELE-NIUM, DIS-SOLVED (UG/L AS SE) (01145)	SILVER, DIS-SOLVED (UG/L AS AG) (01075)	STRON-TIUM, DIS-SOLVED (UG/L AS SR) (01080)
09N.17W.33.3242 WINDMILL	79-06-20	--	--	--	--	--	--	--	--
09N.18W.16.242 SPRING CA	79-04-06	--	3	--	--	--	--	--	--
09N.18W.19.442 ONDELACY	79-08-21	--	40	--	--	--	--	--	--
09N.19W.01.231 DOWA YOLA	79-04-05	--	<1	--	--	--	--	--	--
10N.17W.12.4314 LOWER PE	79-06-18	--	--	--	--	--	--	--	--
10N.17W.12.4424 UPPER PE	79-06-18	--	--	--	--	--	--	--	--
10N.20W.18.314 IRRIGATIO	79-09-05	--	5	--	--	--	--	--	--
10N.20W.32.421 ECW 9	79-09-04	--	20	--	--	--	--	--	--
11N.20W.22.213 RWP 38	79-09-05	--	20	--	--	--	--	--	--
19N.05W.03.222 DHOE4 COA	79-07-24	40	0	1.6	3	0	1	0	200
19N.05W.04.214 19R-302	79-08-02	--	10	--	--	--	--	--	--
19N.05W.04.333 DHOE2 PCC	79-07-25	100	0	.6	21	1	0	0	440
19N.05W.05.221 DHOE5 OB	79-07-25	30	1	.4	19	2	0	0	100
19N.05W.07.112 DHOE1 COA	79-07-24	100	170	1.1	1	1	0	0	1100
20N.10W.16.4413	79-08-20	--	40	.0	--	--	0	0	--

MCKINLEY COUNTY - Continued

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)
19N.05W.03.222 DHOE4 COA	355446107204801	031	GW	79-07-24	1430	<31	--	<18	--
19N.05W.04.333 DHOE2 PCC	355400107224201	031	GW	79-07-25	1145	<44	--	<17	--
19N.05W.05.221 DHOE5 OB	355447107224301	031	GW	79-07-25	1630	<26	--	<7.9	--
20N.10W.16.4413	355811107534701	031	GW	79-08-20	1400	780	<.4	180	<.4

LOCAL IDENT-I-FIER	DATE OF SAMPLE	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)	RA-226, DIS-SOLVED, PLAN-CHET COUNT (PCI/L) (09510)	RADIUM 226, DIS-SOLVED, RADON METHOD (PCI/L) (09511)	URANIUM NATURAL DIS-SOLVED (UG/L AS U) (22703)	URANIUM DIS-SOLVED, EXTRAC-TION (UG/L) (80020)
19N.05W.03.222 DHOE4 COA	79-07-24	<17	--	<.1	--	<.5	--
19N.05W.04.333 DHOE2 PCC	79-07-25	<16	--	.3	--	<.5	--
19N.05W.05.221 DHOE5 OB	79-07-25	<7.3	--	.1	--	<.5	--
20N.10W.16.4413	79-08-20	170	<.4	--	110	--	<.01

SANDOVAL COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	SAMP-LING DEPTH (FT) (00003)	DEPTH TO TOP OF WATER-BEARING ZONE (FT) (72002)
13N.04E.01.234 ALGODONES	352306106275701	043	GW	79-09-14	1130	112SNTF	24.00	90	24
19N.01W.14.3332 LA VENTA	355217106545701	043	GW	78-11-27	1230	221MRSN	445.50	2780	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM-PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)
13N.04E.01.234 ALGODONES	79-09-14	550	5120.00	210	550	850	7.1	26.0	280	0
19N.01W.14.3332 LA VENTA	78-11-27	2780	6978.50	--	--	3780	6.6	16.3	1500	1500

LOCAL IDENT-I-FIER	DATE OF SAMPLE	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)	SODIUM+ POTAS-SIUM DIS-SOLVED (MG/L AS NA) (00933)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)
13N.04E.01.234 ALGODONES	79-09-14	79	20	84	2.2	97	13	520	430	34
19N.01W.14.3332 LA VENTA	78-11-27	550	26	160	1.8	--	11	--	10	160

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SANDOVAL COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)
13N.04E.01.234 ALGODONES	79-09-14	44	.3	100	632	.14	11
19N.01W.14.3332 LA VENTA	78-11-27	1200	6.5	1.8	2140	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	BORON, DIS- SOLVED (UG/L AS B) (01020)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)
13N.04E.01.234 ALGODONES	79-09-14	150	<10	140	<1
19N.01W.14.3332 LA VENTA	78-11-27	770	16000	--	--

SAN JUAN

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)
NR032.0336X1582 COTTONWO	363113108333501	045	GW	78-10-09	1300	110AVMB	--	11	--
		045	GW	79-03-20	1230	110AVMB	--	11	--
		045	GW	79-09-24	1315	110AVMB	--	11	--
NR032.0407X1145 CHACO R	363503108342101	045	GW	78-10-09	1100	110AVMB	--	7.5	--
		045	GW	79-04-23	1600	110AVMB	--	7.5	--
		045	GW	79-09-24	1430	110AVMB	--	7.5	--
NR032.0505X0180 CHACO R	364325108353001	045	GW	78-10-13	1030	110AVMB	--	9.5	--
		045	GW	79-03-17	1330	110AVMB	--	9.5	--
NR048.0898X1715 HUNTER W	361503108243801	045	GW	78-10-10	1030	110AVMB	--	8.0	--
		045	GW	79-03-19	1345	110AVMB	--	8.0	--
		045	GW	79-09-21	1600	110AVMB	--	8.0	--
NR049.0115X0950 BRIMHALL	362145108310901	045	GW	78-10-10	1530	110AVMB	--	8.1	--
		045	GW	79-03-19	1100	110AVMB	--	8.1	--
		045	GW	79-09-21	1430	110AVMB	--	8.1	--
NR049.0335X1618 CHACO R	361554108333201	045	GW	78-10-10	1230	110AVMB	--	12	--
		045	GW	79-03-19	1745	110AVMB	--	12	--
		045	GW	79-09-24	1100	110AVMB	--	12	--
NR049.0367X0886 BURNHAM4	362217108335701	045	GW	79-08-21	0900	110AVMB	17.20	38	38
NR049.0380X0891 BURNHAM	362213108340501	045	GW	78-10-10	1400	110AVMB	3.65	9.5	--
		045	GW	79-03-19	1545	110AVMB	--	9.5	--
		045	GW	79-09-21	1045	110AVMB	--	9.5	--
NR049.0385X0894 BURNHAM	362212108340701	045	GW	78-10-10	1500	110AVMB	--	7.5	--
		045	GW	79-03-19	1400	110AVMB	--	7.5	--
		045	GW	79-09-21	1300	110AVMB	--	7.5	--
NR049.0391X0871 BURNHAM3	362208108341201	045	GW	79-08-20	1430	110AVMB	10.10	38	38
NR066.0668X0380 CHACO R.	361142108220401	045	GW	78-10-11	1530	110AVMB	--	8.0	--
		045	GW	79-04-19	1420	110AVMB	--	8.0	--
		045	GW	79-09-21	1445	110AVMB	--	8.0	--
21N.11W.07.242 CHACO R W	360415108022201	045	GW	78-10-12	1430	110AVMB	--	--	--
		045	GW	79-03-18	1545	110AVMB	--	--	--
		045	GW	79-09-20	1445	110AVMB	--	--	--
22N.11W.26.432 ESCAVADO	360621107582301	045	GW	78-10-12	1230	110AVMB	--	7.5	--
		045	GW	79-03-18	1345	110AVMB	--	7.5	--
		045	GW	79-09-20	1145	110AVMB	--	7.5	--
22N.13W.24.3222A CHACO R	360733108103201	045	GW	78-10-11	1100	110AVMB	--	8.5	--
		045	GW	79-04-19	1145	110AVMB	--	8.5	--
		045	GW	79-09-21	1145	110AVMB	--	8.5	--
23N.13W.17.334 DE-NA-ZIN	361318108151401	045	GW	78-10-11	1330	110AVMB	--	8.0	--
		045	GW	79-03-19	1130	110AVMB	--	8.0	--
		045	GW	79-09-21	1315	110AVMB	--	8.0	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)	ELEV. OF LAND SURFACE DATUM (FT. NGVD) (72000)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)
[illegible] COTTONWD	78-10-09	--	5195.00	2950	7.8	16.0	19.0	.4	270	0
	79-03-20	--	5195.00	2850	7.7	10.0	9.0	.4	300	24
	79-09-24	--	5195.00	2790	7.4	34.0	17.0	1.2	280	17
[illegible] CHACO R	78-10-09	--	5130.00	1750	7.8	16.0	17.0	.2	230	0
	79-04-23	--	5130.00	1735	7.7	26.5	8.5	.3	230	0
	79-09-24	--	5130.00	1730	.0	34.0	18.5	1.2	230	0
[illegible] CHACO R	78-10-13	--	4980.00	3500	8.5	22.0	16.0	.1	100	0
	79-03-17	--	4980.00	3050	8.3	10.0	8.0	.3	100	0
[illegible] HUNTER W	78-10-10	--	5545.00	11100	7.7	24.0	17.0	.3	850	520
	79-03-19	--	5545.00	4000	7.9	7.5	8.0	.4	230	0
	79-09-21	--	5545.00	7150	7.6	26.0	18.0	.7	560	150
[illegible] BRIMHALL	78-10-10	--	5390.00	2200	7.6	24.0	19.0	.8	220	0
	79-03-19	--	5390.00	1910	7.8	.8	6.0	4.0	190	0
	79-09-21	--	5390.00	2000	7.6	25.0	21.0	.4	210	0
[illegible] CHACO R	78-10-10	--	5405.00	960	7.4	24.0	19.0	.3	97	0
	79-03-19	--	5405.00	860	7.6	5.0	7.0	1.1	81	0
	79-09-20	--	5405.00	910	7.5	25.0	19.0	.9	97	0
[illegible] BURNHAM4	79-08-21	10	5325.00	3490	7.2	--	--	--	1000	--
[illegible] BURNHAM	78-10-10	--	5317.00	1300	7.3	27.0	18.0	.3	120	0
	79-03-19	--	5317.00	1100	7.6	.3	8.0	8.5	100	0
	79-09-21	--	5317.00	1160	7.5	26.0	15.5	.3	120	0
[illegible] BURNHAM	78-10-10	--	5319.00	1500	7.4	27.0	19.0	.3	98	0
	79-03-19	--	5319.00	1575	7.6	.4	8.0	6.0	110	0
	79-09-21	--	5319.00	1440	7.3	24.0	19.0	.3	110	0
[illegible] BURNHAM3	79-08-20	10	5325.00	6250	7.7	--	--	--	730	--
[illegible] CHACO R.	78-10-11	--	5650.00	1700	7.7	24.0	19.0	.4	160	0
	79-04-19	--	5650.00	1160	7.8	18.5	9.5	.6	69	0
	79-09-21	--	5650.00	1190	7.4	25.5	20.5	.3	66	0
22N.12W.07.242 CHACO R W	78-10-12	--	6018.00	980	7.9	23.0	19.0	.8	50	0
	79-03-18	--	6018.00	965	8.4	5.5	6.0	1.7	64	0
	79-09-20	--	6018.00	986	7.9	30.0	20.5	.5	56	0
22N.12W.26.432 ESCAVADA	78-10-12	--	6120.00	1400	7.5	22.0	15.0	.4	93	0
	79-03-18	--	6120.00	885	8.0	7.5	5.0	1.9	54	0
	79-09-20	--	6120.00	1200	7.7	25.0	19.0	.6	76	0
22N.13W.26.322A CHACO R	78-10-11	--	5880.00	830	7.7	22.0	16.0	.9	84	0
	79-04-19	--	5880.00	1605	7.7	18.5	8.0	.5	100	0
	79-09-21	--	5880.00	1250	7.7	20.0	18.0	1.0	150	0
23N.13W.17.334 DE-NA-ZIN	78-10-11	--	5700.00	1920	7.6	25.0	19.0	.6	160	0
	79-03-19	--	5700.00	1760	9.3	5.0	6.0	.6	170	0
	79-09-21	--	5700.00	1980	7.6	22.5	20.0	.5	180	0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)
[illegible] COTTONWD	78-10-09	85	14	550	15	--	4.2	364	0	299
	79-03-20	98	15	550	14	--	3.8	332	0	272
	79-09-24	88	14	560	15	560	4.9	320	0	260
[illegible] CHACO R	78-10-09	75	11	320	9.1	--	5.5	398	0	326
	79-04-23	78	12	300	8.5	--	4.1	340	0	279
	79-09-24	71	12	300	8.7	310	5.1	340	0	340

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)
NR032.0505X0180 CHACO R	78-10-13	18	14	730	31	--	4.9	230	20	222
	79-03-17	17	14	640	28	--	4.4	222	0	182
NR048.0898X1715 HUNTER W	78-10-10	110	140	2600	39	--	11	405	0	332
	79-03-19	57	21	830	24	--	3.8	414	0	340
	79-09-21	120	61	1500	28	1500	7.1	500	0	410
NR049.0115X0950 BRIMHALL	78-10-10	74	7.9	380	11	--	4.1	386	0	317
	79-03-19	62	7.3	340	11	--	3.2	324	0	266
	79-09-21	72	7.6	370	11	370	3.9	340	0	340
NR049.0335X1618 CHACO R	78-10-10	34	3.0	180	7.9	--	2.8	280	0	230
	79-03-19	28	2.7	170	8.2	--	2.6	258	0	212
	79-09-24	33	3.3	170	7.6	170	2.7	310	0	310
NR049.0367X0886 BURNHAM4	79-08-21	340	39	400	5.5	410	12	--	--	--
NR049.0380X0891 BURNHAM	78-10-10	39	4.6	200	8.1	--	3.1	364	0	299
	79-03-19	33	4.7	210	9.1	--	2.7	340	0	279
	79-09-21	39	5.1	200	8.3	200	3.4	380	0	380
NR049.0385X0894 BURNHAM	78-10-10	32	4.4	280	12	--	2.9	460	0	377
	79-03-19	36	5.8	310	13	--	2.9	498	0	408
	79-09-21	35	4.6	280	12	280	3.1	460	0	377
NR049.0391X0871 BURNHAM3	79-08-20	210	51	1400	22	1400	9.8	--	--	--
NR066.0668X0380 CHACO R.	78-10-11	55	6.0	280	9.6	--	4.6	332	0	272
	79-04-19	23	2.9	250	13	--	2.9	454	0	372
	79-09-21	22	2.6	260	14	260	3.2	430	0	350
21N.11W.07.242 CHACO R W	78-10-12	17	1.8	190	12	--	1.8	384	0	315
	79-03-18	22	2.3	210	11	--	1.8	410	6	346
	79-09-20	19	1.9	190	11	190	1.9	360	0	360
22N.11W.26.432 ESCAVADO	78-10-12	32	3.1	250	11	--	3.3	418	0	343
	79-03-18	20	1.1	190	11	--	3.0	340	0	279
	79-09-20	27	1.9	250	13	250	3.6	370	0	370
22N.13W.24.3222A CHACO R	78-10-11	27	3.9	130	6.2	--	2.3	272	0	223
	79-04-19	35	4.1	200	8.5	--	2.2	364	0	299
	79-09-21	49	6.6	220	7.8	220	2.9	420	0	420
23N.13W.17.334 DE-NA-ZIN	78-10-11	55	5.8	340	12	--	2.9	286	0	235
	79-03-19	60	5.9	330	11	--	2.5	276	53	315
	79-09-21	62	6.8	370	12	370	2.9	380	0	310

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	NITRO- GEN, AMMONIA TOTAL (MG/L AS N) (00610)
NR032.0336X1582 COTTONWO	78-10-09	1100	35	1.7	16	1980	1990	1.7	--	.06
	79-03-20	1100	34	1.4	9.8	1980	1970	1.7	--	.02
	79-09-24	1200	33	1.6	12	1990	2070	1.7	--	.01
NR032.0407X1145 CHACO R	78-10-09	570	15	1.0	16	1180	1210	.01	--	.49
	79-04-23	560	16	.7	12	1150	1150	.02	--	.45
	79-09-24	620	11	.9	16	1170	1440	.03	--	.58
NR032.0505X0180 CHACO R	78-10-13	1200	160	2.3	1.0	2220	2270	.01	--	1.4
	79-03-17	1100	160	2.0	6.8	2100	2060	.00	--	1.3
NR048.0898X1715 HUNTER W	78-10-10	5800	37	1.6	25	10100	8930	.05	--	.01
	79-03-19	1600	16	2.0	14	2850	2750	5.0	--	.04
	79-09-21	4000	20	1.8	22	5560	5970	1.7	--	.03

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN COUNTY - Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 TOTAL (MG/L AS N) (00630)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA TOTAL (MG/L AS N) (00610)
NR049.0115X0950 BRIMHALL	78-10-10	680	13	1.5	14	1370	1370	1.5	--	.01
	79-03-19	660	9.2	1.4	11	1290	<1250	2.1	--	.05
	79-09-21	770	10	1.8	17	1400	1710	1.8	--	.04
NR049.0335X1618 CHACO R	78-10-10	270	8.4	1.4	13	619	653	.01	--	.09
	79-03-19	210	7.6	1.0	9.3	553	562	.02	--	.07
	79-09-24	250	7.8	1.1	13	586	697	.01	--	.09
NR049.0367X0886 BURNHAM4	79-08-21	2100	32	1.5	16	3140	2950	--	2.1	--
NR049.0380X0891 BURNHAM	78-10-10	280	14	1.3	13	735	7	.01	--	.80
	79-03-19	280	9.6	1.2	11	700	732	.01	--	.46
	79-09-21	310	7.9	1.4	14	769	600	.02	--	.64
NR049.0385X0894 BURNHAM	78-10-10	340	17	1.7	14	887	930	.01	--	.35
	79-03-19	390	8.5	1.5	13	1030	1020	.00	--	.33
	79-09-21	360	10	1.8	15	948	739	.01	--	.39
NR049.0391X0871 BURNHAM3	79-08-20	3500	85	1.0	17	5490	5280	--	1.5	--
NR066.0668X0380 CHACO R.	78-10-11	470	9.8	1.1	17	1070	1010	.00	--	.72
	79-04-19	250	7.5	1.2	14	774	778	.02	--	.38
	79-09-21	300	7.7	1.4	18	776	828	.06	--	.47
21N.11W.07.242 CHACO R W	78-10-12	150	6.1	1.1	12	625	570	.00	--	.05
	79-03-18	170	6.7	.6	7.3	599	629	.02	--	.03
	79-09-20	220	6.7	1.0	12	620	677	.05	--	.07
22N.11W.26.432 ESCAVADO	78-10-12	330	9.6	.8	15	859	852	.00	--	.41
	79-03-18	190	5.7	.6	8.6	569	587	.68	--	.13
	79-09-20	360	8.4	.7	16	817	963	.01	--	.33
22N.13W.24.3222A CHACO R	78-10-11	150	6.6	1.4	9.2	519	469	.01	--	.22
	79-04-19	230	7.3	.8	12	665	672	.01	--	.40
	79-09-21	330	10	1.4	14	821	925	.05	--	.03
23N.13W.17.334 DE-NA-ZIN	78-10-11	580	31	1.2	14	1230	1170	3.1	--	.02
	79-03-19	560	16	.8	9.2	1190	1170	3.3	--	.01
	79-09-21	690	16	1.0	15	1310	1370	2.8	--	.03

LOCAL IDENT-I-FIER	DATE OF SAMPLE	NITRO-GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO-GEN, TOTAL (MG/L AS N) (00600)	PHOS-PHORUS, TOTAL (MG/L AS P) (00665)	ALUM-INUM, DIS-SOLVED (UG/L AS AL) (01106)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BARIUM, DIS-SOLVED (UG/L AS BA) (01005)	BERYL-LIUM, DIS-SOLVED (UG/L AS BE) (01010)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)
NR032.0336X1582 COTTONWO	78-10-09	.31	2.1	.00	10	0	0	0	120	0
	79-03-20	.12	1.8	.00	0	0	0	0	120	1
	79-09-24	.24	2.0	.01	0	0	20	<1	120	1
NR032.0407X1145 CHACO R	78-10-09	.23	.73	.01	0	1	30	<1	160	2
	79-04-23	.11	.58	.01	0	0	20	<1	90	<1
	79-09-24	.09	.70	.01	0	1	40	<1	130	<1
NR032.0505X0180 CHACO R	78-10-13	.40	1.8	.10	50	2	0	10	2400	0
	79-03-17	.00	1.2	.02	0	1	0	0	2000	0
NR048.0898X1715 HUNTER W	78-10-10	.71	.77	.01	0	0	0	0	250	1
	79-03-19	.23	5.3	.01	0	0	0	0	150	0
	79-09-21	.47	2.2	.01	0	0	20	<1	210	<1
NR049.0115X0950 BRIMHALL	78-10-10	.22	1.7	.02	0	0	0	0	120	1
	79-03-19	.22	2.4	.01	0	0	20	<1	70	<1
	79-09-21	.30	2.1	.02	10	1	30	<1	130	<1
NR049.0335X1618 CHACO R	78-10-10	.30	.40	.01	0	0	60	<1	90	<1
	79-03-19	.20	.29	.02	0	0	50	<1	70	<1
	79-09-24	.44	.54	.01	10	1	80	<1	80	<1
NR049.0367X0886 BURNHAM4	79-08-21	--	--	--	--	--	--	--	100	--
NR049.0380X0891 BURNHAM	78-10-10	.80	1.6	.01	20	3	0	0	140	0
	79-03-15	.11	.58	.01	0	1	20	<1	100	2
	79-09-21	.27	.93	.02	0	4	30	<1	120	1
NR049.0385X0894 BURNHAM	78-10-10	.32	.68	.02	30	5	0	0	160	0
	79-03-19	.32	.65	.00	0	3	40	<1	130	<1
	79-09-21	.23	.63	.01	0	5	40	<1	150	<1

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, ORGANIC TOTAL (MG/L AS N) (00605)	NITRO- GEN, TOTAL (MG/L AS N) (00600)	PHOS- PHORUS, TOTAL (MG/L AS P) (00665)	ALUM- INUM, DIS- SOLVED (UG/L AS AL) (01106)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BERYL- LIUM, DIS- SOLVED (UG/L AS BE) (01010)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)
NR049.0391X0871 BURNHAM3	79-08-20	--	--	--	--	--	--	--	160	--
NR066.0668X0380 CHACO R.	78-10-11	1.9	2.6	.02	40	2	40	<1	120	2
	79-04-19	.16	.56	.07	10	1	50	<1	90	<1
	79-09-21	.15	.68	.05	30	1	50	<1	110	<1
21N.11W.07.242 CHACO R W	78-10-12	.28	.33	.02	50	2	70	<1	90	3
	79-03-18	3.1	3.1	.89	10	1	0	0	60	0
	79-09-20	.38	.50	.02	50	1	70	<1	80	<1
22N.11W.26.432 ESCAVADO	78-10-12	.33	.74	.08	70	5	100	<1	70	3
	79-03-18	7.1	7.9	1.3	80	4	0	0	40	0
	79-09-20	.33	.67	.07	0	5	150	<1	70	3
22N.13W.24.3222A CHACO R	78-10-11	.44	.67	.07	90	0	40	<1	90	3
	79-04-19	.34	.75	.16	0	1	60	<1	60	<1
	79-09-21	.39	.47	.01	0	1	40	<1	110	<1
23N.13W.17.334 DE-NA-ZIN	78-10-11	.68	3.8	.01	40	0	20	<1	130	2
	79-03-19	.30	3.6	.00	0	1	0	0	90	0
	79-09-21	.18	3.0	.01	10	1	30	<1	110	<1

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
NR032.0336X1582 COTTONWO	78-10-09	0	0	0	40	0	30	20	.0	7
	79-03-20	0	0	0	10	0	40	30	.2	7
	79-09-24	0	<3	<10	1500	1	39	54	.0	5
NR032.0407X1145 CHACO R	78-10-09	0	2	1	370	0	30	1500	.0	5
	79-04-23	0	<3	1	210	0	20	1400	.0	<10
	79-09-24	10	<3	<10	1900	0	37	1500	.0	4
NR032.0505X0180 CHACO R	78-10-13	0	0	1	670	3	280	110	.0	9
	79-03-17	10	0	0	720	0	270	120	.0	7
NR048.0898X1715 HUNTER W	78-10-10	0	0	2	810	0	220	100	.0	2
	79-03-19	10	0	0	20	0	80	20	.0	3
	79-09-21	10	<3	<10	170	0	150	26	.1	0
NR049.0115X0950 BRIMHALL	78-10-10	0	0	0	20	3	50	200	.0	8
	79-03-19	0	<3	0	20	0	30	190	.0	<10
	79-09-21	20	<3	<10	30	0	48	210	.0	5
NR049.0335X1618 CHACO R	78-10-10	0	1	2	1000	0	20	680	.0	7
	79-03-19	0	<3	0	830	0	10	740	.1	<10
	79-09-24	0	6	<10	2600	0	22	640	.0	4
NR049.0367X0886 BURNHAM4	79-08-21	--	--	--	30	--	50	0	--	--
NR049.0380X0891 BURNHAM	78-10-10	0	0	0	15000	0	20	1200	.0	10
	79-03-19	0	<3	0	7100	2	20	1000	.0	<10
	79-09-21	10	15	<10	8300	0	26	1100	.0	14
NR049.0385X0894 BURNHAM	78-10-10	0	0	1	9900	0	30	800	.0	9
	79-03-19	0	<3	0	5700	0	20	1000	.0	11
	79-09-21	10	19	10	12000	0	30	820	.1	<10
NR049.0391X0871 BURNHAM3	79-08-20	--	--	--	40	--	60	2400	--	--
NR066.0668X0380 CHACO R.	78-10-11	0	<3	3	1900	3	20	1800	.0	6
	79-04-19	0	<3	5	50	0	20	1600	.4	14
	79-09-21	10	<3	<10	370	0	22	1500	.1	8
21N.11W.07.242 CHACO R W	78-10-12	0	<3	2	40	10	20	440	.0	4
	79-03-18	0	0	4	20	0	30	460	.0	3
	79-09-20	10	<3	<10	80	0	24	600	.0	<10

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COBALT, DIS- SOLVED (UG/L AS CO) (01035)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
22N.11W.26.432 ESCAVADO	78-10-12	0	<3	0	220	--	20	1400	.0	4
	79-03-18	0	0	6	60	0	20	130	.0	0
	79-09-20	0	<3	<10	30	0	22	320	.1	3
22N.13W.24.3222A CHACO R	78-10-11	0	<3	0	900	8	20	310	.0	7
	79-04-19	0	<3	5	10	0	20	1200	.5	<10
	79-09-21	0	<3	<10	40	0	30	140	.0	<10
23N.13W.17.334 DE-NA-ZIN	78-10-11	0	<3	10	10	3	40	30	.0	6
	79-03-19	0	0	0	20	2	40	20	.0	3
	79-09-21	10	<3	<10	20	0	43	18	.0	3

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NICKEL, DIS- SOLVED (UG/L AS NI) (01065)	SELE- NIUM, DIS- SOLVED (UG/L AS SE) (01145)	STRON- TIUM, DIS- SOLVED (UG/L AS SR) (01080)	VANA- DIUM, DIS- SOLVED (UG/L AS V) (01085)
NR032.0336X1582 COTTONWO	78-10-09	2	8	--	.0
	79-03-20	1	3	--	.0
	79-09-24	0	5	1600	<6.0
NR032.0407X1145 CHACO R	78-10-09	2	0	--	.0
	79-04-23	0	0	--	.0
	79-09-24	0	0	1400	<6.0
NR032.0505X0180 CHACO R	78-10-13	2	0	--	.0
	79-03-17	0	0	--	.3
NR048.0898X1715 HUNTER W	78-10-10	2	0	--	.0
	79-03-19	0	2	--	.0
	79-09-21	0	0	4100	<6.0
NR049.0115X0950 BRIMHALL	78-10-10	4	7	--	.8
	79-03-19	0	6	--	.1
	79-09-21	0	6	1300	<6.0
NR049.0335X1618 CHACO R	78-10-10	3	0	--	.0
	79-03-19	1	0	--	.0
	79-09-24	1	0	600	<6.0
NR049.0367X0886 BURNHAM4	79-08-21	--	--	--	--
NR049.0380X0891 BURNHAM	78-10-10	9	0	--	2.8
	79-03-19	0	0	--	2.3
	79-09-21	0	0	560	<6.0
NR049.0385X0894 BURNHAM	78-10-10	2	1	--	.2
	79-03-19	0	0	--	1.4
	79-09-21	0	0	600	<6.0
NR049.0391X0871 BURNHAM3	79-08-20	--	--	--	--
NR066.0668X0380 CHACO R.	78-10-11	1	0	--	.0
	79-04-19	0	0	--	.0
	79-09-21	3	0	550	<6.0
21N.11W.07.242 CHACO R W	78-10-12	2	0	--	.0
	79-03-18	0	0	--	2.0
	79-09-20	2	0	410	<6.0
22N.11W.26.432 ESCAVADO	78-10-12	3	0	--	.0
	79-03-18	1	2	--	3.3
	79-09-20	2	0	530	<6.0
22N.13W.24.3222A CHACO R	78-10-11	4	0	--	.0
	79-04-19	0	0	--	.0
	79-09-21	0	0	700	<6.0
23N.13W.17.334 DE-NA-ZIN	78-10-11	2	4	--	.0
	79-03-19	0	5	--	.1
	79-09-21	0	5	980	<6.0

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN COUNTY - Continued

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	SOLIDS, RESIDUE AT 105 DEG. C, SUS-PENDED (MG/L) (00530)	GROSS ALPHA, DIS-SOLVED (UG/L AS U-NAT) (80030)	GROSS ALPHA, SUSP. TOTAL (UG/L AS U-NAT) (80040)	GROSS BETA, DIS-SOLVED (PCI/L AS CS-137) (03515)
NR032.0336X1582 COTTONWO	363113108333501	045	GW	78-10-09	1300	--	<20	9.7	<8.3
		045	GW	79-03-20	1230	--	<35	5.3	<12
NR032.0407X1145 CHACO R	363503108342101	045	GW	79-09-24	1315	--	<36	6.9	<13
		045	GW	78-10-09	1100	--	<10	11	8.5
		045	GW	79-04-23	1600	--	<22	<.4	<8.5
NR032.0505X0180 CHACO R	364325108353001	045	GW	79-09-24	1430	--	25	<.4	32
		045	GW	78-10-13	1030	--	<17	<.4	<10
NR048.0898X1715 HUNTER W	361503108243801	045	GW	79-03-17	1330	--	<36	<.4	<15
		045	GW	78-10-10	1030	--	150	11	<32
		045	GW	79-03-19	1345	--	<66	6.0	<18
NR049.0115X0950 BRIMHALL	362145108310901	045	GW	79-09-21	1600	--	<100	<.4	<33
		045	GW	78-10-10	1530	--	23	2.9	<5.8
		045	GW	79-03-19	1100	<1	<28	<.4	<7.8
NR049.0335X1618 CHACO R	361554108333201	045	GW	79-09-21	1430	--	<27	<.4	14
		045	GW	78-10-10	1230	--	<5.8	.9	4.3
		045	GW	79-03-19	1745	--	<8.0	1.9	<3.6
NR049.0380X0891 BURNHAM	362213108340501	045	GW	79-09-24	1100	--	<7.6	4.0	4.1
		045	GW	78-10-10	1400	--	<5.5	<.4	3.3
		045	GW	79-03-19	1545	--	<11	<.7	<4.6
		045	GW	79-09-21	1045	--	<10	<.5	<4.7
NR049.0385X0894 BURNHAM	362212108340701	045	GW	78-10-10	1500	--	<7.8	2.1	4.6
		045	GW	79-03-19	1400	--	<17	1.6	<5.5
NR066.0668X0380 CHACO R.	361142108220401	045	GW	79-09-21	1300	--	<15	<.4	<6.0
		045	GW	78-10-11	1530	--	<8.6	.7	4.6
		045	GW	79-04-[illegible]	1420	--	<12	31	<5.3
21N.11W.07.242 CHACO R W	360415108022201	045	GW	79-09-21	1445	--	<13	1.2	<4.8
		045	GW	78-10-12	1430	--	<5.8	12	<3.0
		045	GW	79-03-18	1545	--	10	140	<3.8
22N.11W.26.432 ESCAVADO	360621107582301	045	GW	79-09-20	1445	--	<9.8	10	8.5
		045	GW	78-10-12	1230	--	<9.3	8.5	4.5
		045	GW	79-03-18	1345	--	11	650	5.2
22N.13W.24.3222A CHACO R	360733108103201	045	GW	79-09-20	1145	--	20	6.7	23
		045	GW	78-10-11	1100	--	<4.4	1.0	2.7
		045	GW	79-04-19	1145	--	<13	31	<4.7
		045	GW	79-09-21	1145	--	<13	<.4	<5.3
23N.13W.17.334 DE-NA-ZIN	361318108151401	045	GW	78-10-11	1330	--	22	<.4	7.3
		045	GW	79-03-19	1130	--	<23	<.4	<7.2
		045	GW	79-09-21	1315	--	<24	.8	10

LOCAL IDENT-I-FIER	DATE OF SAMPLE	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS-SOLVED (PCI/L AS SR/YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/YT-90) (80060)
NR032.0336X1582 COTTONWO	78-10-09	2.9	<7.6	2.9
	79-03-20	2.1	<11	2.3
	79-09-24	3.5	<12	3.6
NR032.0407X1145 CHACO R	78-10-09	4.7	7.9	4.4
	79-04-23	<.4	<7.7	<.4
	79-09-24	.7	33	.7
NR032.0505X0180 CHACO R	78-10-13	<.5	<9.3	<.6
	79-03-17	<.4	<14	<.4
NR048.0898X1715 HUNTER W	78-10-10	10	<29	10
	79-03-19	5.0	<16	5.1
	79-09-21	3.8	<30	<4.1
NR049.0115X0950 BRIMHALL	78-10-10	1.7	<5.3	1.7
	79-03-19	1.3	<7.2	1.4
	79-09-21	1.1	13	1.1
NR049.0335X1618 CHACO R	78-10-10	.5	4.1	.6
	79-03-19	2.1	<3.4	2.2
	79-09-24	2.1	3.8	2.2

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SAN JUAN COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	GROSS BETA, SUSP. TOTAL (PCI/L AS CS-137) (03516)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	GROSS BETA, SUSP. TOTAL (PCI/L AS SR/ YT-90) (80060)
NR049.0380X0891 BURNHAM	78-10-10	.4	--	--
	79-03-19	<.7	<4.3	<.8
	79-09-21	<.4	<4.4	<.4
NR049.0385X0894 BURNHAM	78-10-10	1.5	4.2	1.4
	79-03-19	1.1	<5.1	1.1
	79-09-21	<.4	<6.1	<.4
NR066.0668X0380 CHACO R.	78-10-11	<.4	4.2	<.4
	79-04-19	14	<4.9	14
	79-09-21	1.0	<4.9	1.0
21N.11W.07.242 CHACO R W	78-10-12	6.3	<2.8	6.2
	79-03-18	64	<3.6	61
	79-09-20	5.7	7.9	5.8
22N.11W.26.432 ESCAVADO	78-10-12	6.9	4.2	6.3
	79-03-18	350	5.0	330
	79-09-20	5.1	21	5.1
22N.13W.24.3222A CHACO R	78-10-11	1.0	2.5	1.0
	79-04-19	15	<4.3	14
	79-09-21	<.4	<4.9	.4
23N.13W.17.334 DE-NA-ZIN	78-10-11	.6	6.8	.7
	79-03-19	<.4	<6.7	.4
	79-09-21	3.5	9.6	3.7

SANTA FE COUNTY

LOCAL IDENT- I- FIER	STATION MBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	DEPTH TO BOT- TOM OF SAMPLE INTER- VAL (FT) (72016)	DEPTH TO TOP OF SAMPLE INTER- VAL (FT) (72015)
15N.10E.12.22243 DAVIDSO	353257105492801	049	GW	79-09-12	1500	110AVMB	62	62	32
19N.07E.36.13343 BUCKMAN	355006106093001	049	GW	79-09-12	1100	121TSUQ	1093	1093	257

LOCAL IDENT- I- FIER	DATE OF SAMPLE	ELEV. OF LAND SURFACE DATUM (FT. NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)	DEPTH OF HOLE, TOTAL (FEET) (72001)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)
15N.10E.12.22243 DAVIDSO	79-09-12	6960.00	30	62	460	7.1	14.5	210	16	67
19N.07E.36.13343 BUCKMAN	79-09-12	5510.00	20160	1104	355	8.3	23.5	27	0	10

LOCAL IDENT- I- FIER	DATE OF SAMPLE	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
15N.10E.12.22243 DAVIDSO	79-09-12	11	12	.4	17	4.8	240	200	40	7.8
19N.07E.36.13343 BUCKMAN	79-09-12	.5	78	6.5	81	2.9	230	190	18	2.6

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SANTA FE COUNTY - Continued

LOCAL IDENT-I-FIER	DATE OF SAMPLE	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70310)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LITHIUM DIS-SOLVED (UG/L AS LI) (01130)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)
15N.10E.12.22243 DAVIDSO	79-09-12	.8	19	283	.58	1	40	10	30	<1
19N.07E.36.13343 BUCKMAN	79-09-12	.7	38	268	.83	10	80	<10	70	<1

SIERRA COUNTY

LOCAL IDENT-I-FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO-LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	FLOW RATE, INSTAN-TANEOUS (GPM) (00059)
10S.08W.09.132 BLM GARRE	332727107410301	051	GW	79-04-04	1130	--	357.12	439	12
10S.09W.12.143 SAGE IRRI	332723107434501	051	GW	79-04-05	1100	--	16.44	125	26

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SPE-CIFIC CON-DUCT-ANCE (MICRO-MHOS) (00095)	PH (UNITS) (00400)	TEMPER-ATURE (DEG C) (00010)	HARD-NESS (MG/L AS CACO3) (00900)	HARD-NESS, NONCAR-BONATE (MG/L CACO3) (00902)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM AD-SORP-TION RATIO (00931)
10S.08W.09.132 BLM GARRE	79-04-04	220	8.5	17.5	20	0	7.6	.2	45	4.4
10S.09W.12.143 SAGE IRRI	79-04-05	480	7.4	14.5	240	57	75	13	16	.4

LOCAL IDENT-I-FIER	DATE OF SAMPLE	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE (MG/L AS HCO3) (00440)	CAR-BONATE (MG/L AS CO3) (00445)	ALKA-LINITY (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS-SOLVED (MG/L) (70300)
10S.08W.09.132 BLM GARRE	79-04-04	.5	120	--	98	6.6	3.6	.7	26	152
10S.09W.12.143 SAGE IRRI	79-04-05	1.6	223	0	183	80	7.1	.2	29	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	ARSENIC DIS-SOLVED (UG/L AS AS) (01000)	BORON, DIS-SOLVED (UG/L AS B) (01020)	CADMIUM DIS-SOLVED (UG/L AS CD) (01025)	CHRO-MIUM, DIS-SOLVED (UG/L AS CR) (01030)	COPPER, DIS-SOLVED (UG/L AS CU) (01040)
10S.08W.09.132 BLM GARRE	79-04-04	156	1.4	7	110	<1	10	<10
10S.09W.12.143 SAGE IRRI	79-04-05	333	.38	--	30	--	--	--

LOCAL IDENT-I-FIER	DATE OF SAMPLE	IRON, DIS-SOLVED (UG/L AS FE) (01046)	LEAD, DIS-SOLVED (UG/L AS PB) (01049)	MANGA-NESE, DIS-SOLVED (UG/L AS MN) (01056)	MERCURY DIS-SOLVED (UG/L AS HG) (71890)
10S.08W.09.132 BLM GARRE	79-04-04	10	<10	2	.0
10S.09W.12.143 SAGE IRRI	79-04-05	30	--	6	--

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SOCORRO COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH BELOW LAND SURFACE (WATER LEVEL) (FEET) (72019)	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. NGVD) (72000)
01S.08W.02.241 IRR NO 1	341520107375601	053	GW	79-07-10	1100	--	204.70	--	--
02S.02E.05.223	341014106450810	053	SP	79-07-10	1419	--	--	--	5265.00
02S.07W.27.444 WARM WELL	340602107323101	053	GW	79-05-07	--	--	218.10	--	--
02S.08W.21.413 NEW AUGUS	340656107401401	053	GW	79-08-30	1000	--	--	--	--
03S.08W.01.310 VLA MAIN	340424107372701	053	GW	79-08-21	1445	--	--	--	--
03S.08W.21.124 JACK BRUT	340238107402301	053	GW	79-08-31	1200	--	--	--	--
04S.09W.12.133 OLD SAND	335840107434001	053	GW	79-05-08	--	--	--	--	--
05S.09W.24.441 FRENCHMAN	335112107430801	053	GW	79-08-23	1945	--	--	--	--
06S.03E.05.232	334908106390801	053	GW	79-02-15	1300	--	206.00	--	--
06S.08W.08.432 WELTY SAL	334759107410201	053	GW	79-08-24	1300	--	--	770	--
07S.08W.04.344A WELTY DE	334347107470001	053	GW	79-03-30	1600	--	511.00	580	--
07S.08W.28.141 HENDERSON	334038107402201	053	GW	79-08-31	1045	--	--	--	--
07S.09W.25.144 MCCRACKEN	334032107431801	053	GW	79-08-24	1415	--	--	--	--
08S.07W.31.241 SPRING-OJ	323155107353501	053	SP	78-12-13	1500	--	--	--	--
09S.07W.6.423 ALUM SPRIN	333322107353501	053	SP	79-04-18	1450	000EXRV	--	--	--
09S.08W.03.213 FALCO WEL	333354107384901	053	GW	79-04-12	0930	--	82.39	120	--
09S.08W.08.223 KNISLEY W	333257107404601	053	GW	79-04-11	1400	--	247.40	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	FLOW RATE, INSTAN- TANEOUS (GPM) (00059)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE, AIR (DEG C) (00020)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
01S.08W.02.241 IRR NO 1	79-07-10	--	520	7.8	--	20.5	180	57	49	13
02S.02E.05.223	79-07-10	--	4000	8.3	40.0	30.0	2600	2400	560	280
02S.07W.27.444 WARM WELL	79-05-07	--	430	8.3	--	36.0	27	0	8.4	1.5
02S.08W.21.413 NEW AUGUS	79-08-30	--	210	8.4	--	--	28	0	8.5	1.6
03S.08W.01.310 VLA MAIN	79-08-21	--	310	7.9	--	20.0	74	0	21	5.2
03S.08W.21.124 JACK BRUT	79-08-31	--	270	--	--	16.5	--	--	--	--
04S.09W.12.133 OLD SAND	79-05-08	--	460	8.0	--	18.0	80	0	22	6.0
05S.09W.24.441 FRENCHMAN	79-08-23	--	310	8.0	--	20.0	86	0	29	3.2
06S.03E.05.232	79-02-15	--	3470	7.6	--	--	--	--	--	--
06S.08W.08.432 WELTY SAL	79-08-24	5.0	2100	7.5	--	35.0	440	350	160	11
07S.08W.04.344A WELTY DE	79-03-30	7.5	250	7.9	--	16.0	100	0	34	4.1
07S.08W.28.141 HENDERSON	79-08-31	--	200	7.8	--	--	84	9	28	3.4
07S.09W.25.144 MCCRACKEN	79-08-24	12	310	9.0	--	28.0	19	0	6.9	.5
08S.07W.31.241 SPRING-OJ	78-12-13	700	870	7.7	--	27.5	110	10	40	1.5
09S.07W.6.423 ALUM SPRIN	79-04-18	.25	900	7.9	--	16.0	--	--	--	--
09S.08W.03.213 FALCO WEL	79-04-12	1.0	700	8.0	--	14.0	--	--	--	--
09S.08W.08.223 KNISLEY W	79-04-11	--	290	7.5	--	17.0	120	0	40	5.2

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
01S.08W.02.241 IRR NO 1	79-07-10	48	1.5	52	3.7	150	0	123	150	7.8
02S.02E.05.223	79-07-10	190	1.6	200	12	--	--	180	2600	68
02S.07W.27.444 WARM WELL	79-05-07	82	6.8	--	1.7	124	0	102	50	24
02S.08W.21.413 NEW AUGUS	79-08-30	37	3.1	38	1.1	120	0	98	9.5	.4
03S.08W.01.310 VLA MAIN	79-08-21	37	1.9	38	1.2	140	0	115	22	7.7

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SOCORRO COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	CAR- BONATE (MG/L AS CO3) (00445)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)
03S.08W.21.124 JACK BRUT	79-08-31	--	--	--	--	--	--	60	14	9.1
04S.09W.12.133 OLD SAND	79-05-08	71	3.5	73	2.1	190	0	156	27	15
05S.09W.24.441 FRENCHMAN	79-08-23	35	1.6	39	4.4	130	0	107	16	5.1
06S.03E.05.232	79-02-15	--	--	--	--	--	--	--	--	--
06S.08W.08.432 WELTY SAL	79-08-24	290	6.0	320	29	120	0	98	580	280
07S.08W.04.344A WELTY DE	79-03-30	11	.5	--	3.5	142	0	116	5.5	4.0
07S.08W.28.141 HENDERSON	79-08-31	7.6	.4	10	2.8	--	--	75	11	3.0
07S.09W.25.144 MCCRACKEN	79-08-24	56	5.5	57	.5	110	4	97	18	4.8
08S.07W.31.241 SPRING-OJ	78-12-13	140	5.9	--	5.4	--	--	96	100	150
09S.07W.6.423 ALUM SPRIN	79-04-18	--	--	--	--	--	--	--	270	9.2
09S.08W.03.213 FALCO WEL	79-04-12	--	--	--	--	120	0	98	39	130
09S.08W.08.223 KNISLEY W	79-04-11	18	.7	--	1.5	150	0	123	19	5.5

LOCAL IDENT- I- FIER	DATE OF SAMPLE	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) (00671)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BARIUM, DIS- SOLVED (UG/L AS BA) (01005)	BORON, DIS- SOLVED (UG/L AS B) (01020)
01S.08W.02.241 IRR NO 1	79-07-10	.7	46	387	396	.90	--	3	--	80
02S.02E.05.223	79-07-10	.8	20	4220	3840	.97	--	1	--	480
02S.07W.27.444 WARM WELL	79-05-07	3.2	54	--	293	1.6	--	8	--	140
02S.08W.21.413 NEW AUGUS	79-08-30	.4	22	141	145	1.2	--	4	--	40
03S.08W.01.310 VLA MAIN	79-08-21	.7	38	--	207	1.2	--	4	--	70
03S.08W.21.124 JACK BRUT	79-08-31	1.1	39	--	--	10	--	--	--	--
04S.09W.12.133 OLD SAND	79-05-08	2.0	33	--	292	4.5	--	3	--	210
05S.09W.24.441 FRENCHMAN	79-08-23	1.3	58	212	221	.98	--	3	--	80
06S.03E.05.232	79-02-15	--	--	--	--	--	--	--	--	--
06S.08W.08.432 WELTY SAL	79-08-24	3.6	29	1440	<1440	.02	--	15	--	190
07S.08W.04.344A WELTY DE	79-03-30	.2	49	--	183	.48	--	1	--	30
~~07S.08W.28.141~~ HENDERSON	79-08-31	.2	40	142	145	.84	--	1	--	30
07S.09W.25.144 MCCRACKEN	79-08-24	3.8	34	173	186	.62	--	4	--	60
08S.07W.31.241 SPRING-OJ	78-12-13	2.9	38	541	537	.24	.19	9	4	90
09S.07W.6.423 ALUM SPRIN	79-04-18	1.2	26	--	--	--	--	--	--	--
09S.08W.03.213 FALCO WEL	79-04-12	--	--	--	--	--	--	--	--	--
09S.08W.08.223 KNISLEY W	79-04-11	.2	29	108	201	1.8	--	1	--	60

LOCAL IDENT- I- FIER	DATE OF SAMPLE	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	CHRO- MIUM, HEXA- VALENT, DIS. (UG/L AS CR) (01032)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)
01S.08W.02.241 IRR NO 1	79-07-10	2	10	--	<10	10	<10
02S.02E.05.223	79-07-10	0	20	--	30	40	0
02S.07W.27.444 WARM WELL	79-05-07	0	0	--	0	200	0
02S.08W.21.413 NEW AUGUS	79-08-30	0	20	--	0	10	0
03S.08W.01.310 VLA MAIN	79-08-21	0	10	--	0	10	0

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

SOCORRO COUNTY - Continued

LOCAL IDENTIFIER	DATE OF SAMPLE	CADMIUM DISSOLVED (UG/L AS CD) (01025)	CHROMIUM, DISSOLVED (UG/L AS CR) (01030)	CHROMIUM, HEXAVALENT, DIS. (UG/L AS CR) (01032)	COPPER, DISSOLVED (UG/L AS CU) (01040)	IRON, DISSOLVED (UG/L AS FE) (01046)	LEAD, DISSOLVED (UG/L AS PB) (01049)
03S.08W.21.124 JACK BRUT	79-08-31	--	--	--	--	--	--
04S.09W.12.133 OLD SAND	79-05-08	0	0	--	0	50	0
05S.09W.24.441 FRENCHMAN	79-08-23	0	0	--	0	10	0
06S.03E.05.232	79-02-15	--	--	--	--	--	--
06S.08W.08.432 WELTY SAL	79-08-24	0	10	--	0	180	0
07S.08W.04.344A WELTY DE	79-03-30	0	0	--	0	10	0
07S.08W.28.141 HENDERSON	79-08-31	0	0	--	0	80	0
07S.09W.25.144 MCCRACKEN	79-08-24	0	0	--	0	40	0
08S.07W.31.241 SPRING-OJ	78-12-13	<1	2	0	0	<0	2
09S.07W.6.423 ALUM SPRIN	79-04-18	--	--	--	--	--	--
09S.08W.03.213 FALCO WEL	79-04-12	--	--	--	--	--	--
09S.08W.08.223 KNISLEY W	79-04-11	1	0	--	<10	40	21

LOCAL IDENTIFIER	DATE OF SAMPLE	MANGANESE, DISSOLVED (UG/L AS MN) (01056)	MERCURY DISSOLVED (UG/L AS HG) (71890)	SELENIUM, DISSOLVED (UG/L AS SE) (01145)	SILVER, DISSOLVED (UG/L AS AG) (01075)
01S.08W.02.241 IRR NO 1	79-07-10	<1	--	--	--
02S.02E.05.223	79-07-10	290	.2	--	--
02S.07W.27.444 WARM WELL	79-05-07	0	.1	--	--
02S.08W.21.413 NEW AUGUS	79-08-30	0	.1	--	--
03S.08W.01.310 VLA MAIN	79-08-21	0	.0	--	--
03S.08W.21.124 JACK BRUT	79-08-31	--	--	--	--
04S.09W.12.133 OLD SAND	79-05-08	10	.0	--	--
05S.09W.24.441 FRENCHMAN	79-08-23	0	.1	--	--
06S.03E.05.232	79-02-15	--	--	--	--
06S.08W.08.432 WELTY SAL	79-08-24	200	2.2	--	--
07S.08W.04.344A WELTY DE	79-03-30	0	.1	--	--
07S.08W.28.141 HENDERSON	79-08-31	0	1.7	--	--
07S.09W.25.144 MCCRACKEN	79-08-24	0	2.6	--	--
08S.07W.31.241 SPRING-OJ	78-12-13	<1	.0	0	0
09S.07W.6.423 ALUM SPRIN	79-04-18	--	--	--	--
09S.08W.03.213 FALCO WEL	79-04-12	--	--	--	--
09S.08W.08.223 KNISLEY W	79-04-11	2	.0	--	--

LOCAL IDENTIFIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DISSOLVED (UG/L AS U-NAT) (80030)	GROSS BETA, DISSOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, DISSOLVED (PCI/L AS SR/YT-90) (80050)	URANIUM NATURAL DISSOLVED (UG/L AS U) (22703)
01S.08W.02.241 IRR NO 1	341520107375601	053	GW	79-07-10	1100	14	5.2	4.7	2.2
02S.08W.21.413 NEW AUGUS	340656107401401	053	GW	79-08-30	1000	2.1	3.6	3.7	.5
03S.08W.01.310 VLA MAIN	340424107372701	053	GW	79-08-21	1445	17	3.0	2.7	3.7
05S.09W.24.441 FRENCHMAN	335112107430801	053	GW	79-08-23	1945	8.0	8.6	7.8	3.0
06S.08W.08.432 WELTY SAL	334759107410201	053	GW	79-08-24	1300	<30	38	35	<.5
07S.08W.28.141 HENDERSON	334038107402201	053	GW	79-08-31	1045	3.8	3.1	2.8	.9
07S.09W.25.144 MCCRACKEN	334032107431801	053	GW	79-08-24	1415	8.1	7.4	6.8	6.5
08S.07W.31.241 SPRING-OJ	323155107353501	053	SP	78-12-13	1500	22	5.3	4.8	5.7

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

TAOS COUNTY

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GEO- LOGIC UNIT	DEPTH OF WELL, TOTAL (FEET) (72008)	ELEV. OF LAND SURFACE DATUM (FT. NGVD) (72000)	PUMP OR FLOW PERIOD PRIOR TO SAM- PLING (MIN) (72004)
SANGRE DE CRISTO GRANT	365827105314801	055	GW	79-09-05	1800	--	250	7819.00	30
25N.13E.08.4341 TAOS TOW	362436105342001	055	GW	79-09-06	1530	--	204	6970.00	--
28N.12E.17.2111 LITTLE A	364105105410501	055	SP	79-09-06	1000	--	--	6860.00	--
28N.12E.9.22 SPRING BLW	364052105393201	055	SP	79-04-27	0830	--	--	--	--
		055	SP	79-05-24	1100	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	DEPTH OF HOLE, TOTAL (FEET) (72001)	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	OXYGEN, DIS- SOLVED (MG/L) (00300)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)
SANGRE DE CRISTO GRANT	79-09-05	250	230	7.1	11.0	7.6	96	0	30	5.0
25N.13E.08.4341 TAOS TOW	79-09-06	204	490	7.3	12.5	6.7	240	7	75	12
28N.12E.17.2111 LITTLE A	79-09-06	--	220	8.2	14.5	--	59	0	16	4.6
28N.12E.9.22 SPRING BLW	79-04-27	--	185	--	11.5	--	--	--	--	--
	79-05-24	--	--	--	17.0	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	BICAR- BONATE (MG/L AS HCO3) (00440)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)
SANGRE DE CRISTO GRANT	79-09-05	6.8	.3	8.2	1.4	120	98	12	1.4	.6
25N.13E.08.4341 TAOS TOW	79-09-06	14	.4	15	1.0	280	230	33	5.1	.2
28N.12E.17.2111 LITTLE A	79-09-06	19	1.1	22	2.6	100	82	19	4.4	1.3
28N.12E.9.22 SPRING BLW	79-04-27	--	--	--	--	--	--	--	--	--
	79-05-24	--	--	--	--	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	CYANIDE TOTAL (MG/L AS CN) (00720)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
SANGRE DE CRISTO GRANT	79-09-05	23	146	1.5	--	0	7	--	--
25N.13E.08.4341 TAOS TOW	79-09-06	18	301	1.1	--	0	20	--	--
28N.12E.17.2111 LITTLE A	79-09-06	34	152	.44	--	1	20	--	--
28N.12E.9.22 SPRING BLW	79-04-27	--	--	--	.00	--	--	0	--
	79-05-24	--	--	--	--	--	--	--	0

LOCAL IDENT- I- FIER	DATE OF SAMPLE	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LITHIUM DIS- SOLVED (UG/L AS LI) (01130)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) (01060)
SANGRE DE CRISTO GRANT	79-09-05	10	10	<1	--
25N.13E.08.4341 TAOS TOW	79-09-06	<10	5	<1	--
28N.12E.17.2111 LITTLE A	79-09-06	10	20	<1	--
28N.12E.9.22 SPRING BLW	79-04-27	--	--	--	--
	79-05-24	--	--	--	3

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

VALENCIA COUNTY

LOCAL I- FIER	STATION NUMBER	COUNTY	SITE	OF SAMPLE	TIME	LOGIC UNIT	DEPTH BELOW LAND (WATER LEVEL) (FEET) (72019)	PUMP OR FLOW PERIOD TO SAM- PLING (MIN) (72004)	FLOW INSTAN- TANEOUS (GPM) (00059)
03N.17W.08.2 GARCIA SPRI	343010108390001	061	SP	79-07-19	1510	211GLLP	--	--	--
05N.10W.27.234 WOODS # 2	343756107523301	061	GW	78-10-30	1400	--	--	--	--
05N.13W.18.113 JULIAN WM	343957108151601	061	GW	78-11-28	1200	--	223.40	--	--
05N.14W.15.33 MUJERES CA	343905108182001	061	GW	79-08-10	--	--	--	--	--
07N.12W.21.433 NO 21 WL	344852108061901	061	GW	78-11-30	1400	--	457.40	--	--
07N.21W.03. BOKUM WELL	345217109020701	061	GW	79-06-19	1100	211MVRD	--	--	--
08N.09W.07.311 SB-WELL	345619107505001	061	GW	78-11-30	--	--	206.00	--	--
08N.10W.26.412 PILARES W	345333107513401	061	GW	78-11-13	1400	--	256.00	30	--
08N.11W.06.234 BRIGHT WL	345706108015701	061	GW	78-11-02	1100	--	--	--	--
08N.18W.24.221 ECW 7	345450108404601	061	GW	79-08-31	--	231CHNL	--	--	--
08N.20W.20.2112 PLUMASAN	345455108575401	061	SP	79-06-19	1530	310GLRT	--	--	--
08N.20W.21.1441 RAINBOW	345438108570201	061	SP	79-06-19	1415	310GLRT	--	--	--
08N.20W.31.321 IRRIGATIO	345245108591901	061	GW	79-08-21	1630	231CHNL	--	--	.50

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SPE- CIFIC CON- DUCT- ANCE (MICRO- MHOS) (00095)	PH (UNITS) (00400)	TEMPER- ATURE (DEG C) (00010)	HARD- NESS (MG/L AS CACO3) (00900)	HARD- NESS, NONCAR- BONATE (MG/L CACO3) (00902)	CALCIUM DIS- SOLVED (MG/L AS CA) (00915)	MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) (00925)	SODIUM, DIS- SOLVED (MG/L AS NA) (00930)	SODIUM AD- SORP- TION RATIO (00931)
03N.17W.08.2 GARCIA SPRI	79-07-19	--	--	--	42	0	12	2.8	240	16
05N.10W.27.234 WOODS # 2	78-10-30	1990	7.2	12.0	390	4	120	23	320	7.0
05N.13W.18.113 JULIAN WM	78-11-28	2130	8.5	12.0	45	0	14	2.4	500	33
05N.14W.15.33 MUJERES CA	79-08-10	--	--	--	120	0	29	11	42	1.7
07N.12W.21.433 NO 21 WL	78-11-30	259	8.5	16.0	37	0	12	1.7	44	3.2
07N.21W.03. BOKUM WELL	79-06-19	1250	--	16.0	460	210	120	40	160	3.2
08N.09W.07.311 SB-WELL	78-11-30	893	7.6	13.0	390	130	83	44	64	1.4
08N.10W.26.412 PILARES W	78-11-13	727	7.8	13.0	320	100	69	37	33	.8
08N.11W.06.234 BRIGHT WL	78-11-02	342	7.9	12.0	140	0	33	13	16	.6
08N.18W.24.221 ECW 7	79-08-31	700	8.3	--	18	0	6.4	.5	170	17
08N.20W.20.2112 PLUMASAN	79-06-19	1370	8.1	28.0	470	250	140	30	150	3.0
08N.20W.21.1441 RAINBOW	79-06-19	1050	7.0	22.0	520	250	140	41	54	1.0
08N.20W.31.321 IRRIGATIO	79-08-21	1060	7.6	18.0	210	56	51	19	160	4.9

LOCAL IDENT- I- FIER	DATE OF SAMPLE	SODIUM+ POTAS- SIUM DIS- SOLVED (MG/L AS NA) (00933)	POTAS- SIUM, DIS- SOLVED (MG/L AS K) (00935)	ALKA- LINITY (MG/L AS CACO3) (00410)	SULFATE DIS- SOLVED (MG/L AS SO4) (00945)	CHLO- RIDE, DIS- SOLVED (MG/L AS CL) (00940)	FLUO- RIDE, DIS- SOLVED (MG/L AS F) (00950)	SILICA, DIS- SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) (70300)	SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) (70301)
03N.17W.08.2 GARCIA SPRI	79-07-19	240	1.6	440	180	19	1.0	10	747	731
05N.10W.27.234 WOODS # 2	78-10-30	--	6.8	390	620	56	.9	11	1380	--
05N.13W.18.113 JULIAN WM	78-11-28	--	3.6	540	560	35	2.8	7.9	1420	1450
05N.14W.15.33 MUJERES CA	79-08-10	45	2.8	200	22	12	.3	20	260	260
07N.12W.21.433 NO 21 WL	78-11-30	--	2.7	100	18	10	.3	6.2	157	156
07N.21W.03. BOKUM WELL	79-06-19	160	4.5	250	480	45	.3	9.6	--	1010
08N.09W.07.311 SB-WELL	78-11-30	--	3.5	260	250	10	.4	12	606	634
08N.10W.26.412 PILARES W	78-11-13	--	3.8	220	170	9.4	.6	10	459	--
08N.11W.06.234 BRIGHT WL	78-11-02	--	2.7	150	16	6.5	.3	19	201	--
08N.18W.24.221 ECW 7	79-08-31	170	1.0	210	210	5.9	.7	11	--	532
08N.20W.20.2112 PLUMASAN	79-06-19	160	5.0	220	450	43	.5	14	--	966
08N.20W.21.1441 RAINBOW	79-06-19	60	5.8	270	310	32	.5	15	--	761
08N.20W.31.321 IRRIGATIO	79-08-21	160	4.1	150	370	21	.3	9.5	--	725

WATER QUALITY DATA, WATER YEAR OCTOBER 1978 TO SEPTEMBER 1979

VALENCIA COUNTY - Continued

LOCAL IDENT- I- FIER	DATE OF SAMPLE	NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) (00631)	ARSENIC DIS- SOLVED (UG/L AS AS) (01000)	BORON, DIS- SOLVED (UG/L AS B) (01020)	CADMIUM DIS- SOLVED (UG/L AS CD) (01025)	CHRO- MIUM, DIS- SOLVED (UG/L AS CR) (01030)	COPPER, DIS- SOLVED (UG/L AS CU) (01040)
03N.17W.08.2 GARCIA SPRI	79-07-19	.02	0	300	2	10	<10
05N.10W.27.234 WOODS # 2	78-10-30	.61	0	130	9	10	59
05N.13W.18.113 JULIAN WM	78-11-28	.09	1	460	0	20	10
05N.14W.15.33 MUJERES CA	79-08-10	.00	0	70	<1	0	<10
07N.12W.21.433 NO 21 WL	78-11-30	.04	2	50	0	20	30
07N.21W.03. BOKUM WELL	79-06-19	.01	--	--	--	--	--
08N.09W.07.311 SB-WELL	78-11-30	1.7	1	130	0	20	20
08N.10W.26.412 PILARES W	78-11-13	1.8	0	100	<1	20	<10
08N.11W.06.234 BRIGHT WL	78-11-02	1.4	4	60	2	10	10
08N.18W.24.221 ECW 7	79-08-31	.14	--	--	--	--	--
08N.20W.20.2112 PLUMASAN	79-06-19	.25	--	--	--	--	--
08N.20W.21.1441 RAINBOW	79-06-19	.01	--	--	--	--	--
08N.20W.31.321 IRRIGATIO	79-08-21	.02	--	--	--	--	--

LOCAL IDENT- I- FIER	DATE OF SAMPLE	IRON, DIS- SOLVED (UG/L AS FE) (01046)	LEAD, DIS- SOLVED (UG/L AS PB) (01049)	MANGA- NESE, DIS- SOLVED (UG/L AS MN) (01056)	MERCURY DIS- SOLVED (UG/L AS HG) (71890)
03N.17W.08.2 GARCIA SPRI	79-07-19	10	<10	<1	.7
05N.10W.27.234 WOODS # 2	78-10-30	1200	<10	120	.0
05N.13W.18.113 JULIAN WM	78-11-28	130	0	30	.0
05N.14W.15.33 MUJERES CA	79-08-10	10	<10	60	.1
07N.12W.21.433 NO 21 WL	78-11-30	290	0	10	.0
07N.21W.03. BOKUM WELL	79-06-19	3200	--	--	--
08N.09W.07.311 SB-WELL	78-11-30	20	0	10	.0
08N.10W.26.412 PILARES W	78-11-13	1300	<10	90	.1
08N.11W.06.234 BRIGHT WL	78-11-02	0	<10	6	.0
08N.18W.24.221 ECW 7	79-08-31	50	--	20	--
08N.20W.20.2112 PLUMASAN	79-06-19	20	--	--	--
08N.20W.21.1441 RAINBOW	79-06-19	10	--	--	--
08N.20W.31.321 IRRIGATIO	79-08-21	<10	--	110	--

LOCAL IDENT- I- FIER	STATION NUMBER	COUNTY	SITE	DATE OF SAMPLE	TIME	GROSS ALPHA, DIS- SOLVED (UG/L AS U-NAT) (80030)	GROSS BETA, DIS- SOLVED (PCI/L AS CS-137) (03515)	GROSS BETA, DIS- SOLVED (PCI/L AS SR/ YT-90) (80050)	URANIUM NATURAL DIS- SOLVED (UG/L AS U) (22703)
03N.17W.08.2 GARCIA SPRI	343010108390001	061	SP	79-07-19	1510	<13	4.3	<4.0	1.5
05N.13W.18.113 JULIAN WM	343957108151601	061	GW	78-11-28	1200	<11	<4.7	<4.4	.4
05N.14W.15.33 MUJERES CA	343905108182001	061	GW	79-08-10	--	23	7.8	7.2	9.5
07N.12W.21.433 NO 21 WL	344852108061901	061	GW	78-11-30	1400	<1.6	4.1	3.8	<.4
08N.09W.07.311 SB-WELL	345619107505001	061	GW	78-11-30	--	16	4.9	4.4	4.6
08N.10W.26.412 PILARES W	345333107513401	061	GW	78-11-13	1400	16	6.0	5.5	2.6
08N.11W.06.234 BRIGHT WL	345706108015701	061	GW	78-11-02	1100	21	5.2	4.7	4.9

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

Multiply inch-pound units	By	To obtain SI units
	Length	
inches (in)	$2.54\text{x}10^{1}$	millimeters (mm)
	$2.54\text{x}10^{-2}$	meters (m)
feet (ft)	$3.048\text{x}10^{-1}$	meters (m)
miles (mi)	$1.609\text{x}10^{0}$	kilometers (km)
	Area	
acres	$4.047\text{x}10^{3}$	square meters (m^2)
	$4.047\text{x}10^{-1}$	square hectometers (hm^2)
	$4.047\text{x}10^{-3}$	square kilometers (km^2)
square miles (mi^2)	$2.590\text{x}10^{0}$	square kilometers (km^2)
	Volume	
gallons (gal)	$3.785\text{x}10^{0}$	liters (L)
	$3.785\text{x}10^{0}$	cubic decimeters (dm^3)
	$3.785\text{x}10^{-3}$	cubic meters (m^3)
million gallons	$3.785\text{x}10^{3}$	cubic meters (m^3)
	$3.785\text{x}10^{-3}$	cubic hectometers (hm^3)
cubic feet (ft^3)	$2.832\text{x}10^{1}$	cubic decimeters (dm^3)
	$2.832\text{x}10^{-2}$	cubic meters (m^3)
cfs-days	$2.447\text{x}10^{3}$	cubic meters (m^3)
	$2.447\text{x}10^{-3}$	cubic hectometers (hm^3)
acre-feet (acre-ft)	$1.233\text{x}10^{3}$	cubic meters (m^3)
	$1.233\text{x}10^{-3}$	cubic hectometers (hm^3)
	$1.233\text{x}10^{-6}$	cubic kilometers (km^3)
	Flow	
cubic feet per second (ft^3/s)	$2.832\text{x}10^{1}$	liters per second (L/s)
	$2.832\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$2.832\text{x}10^{-2}$	cubic meters per second (m^3/s)
gallons per minute (gal/min)	$6.309\text{x}10^{-2}$	liters per second (L/s)
	$6.309\text{x}10^{-2}$	cubic decimeters per second (dm^3/s)
	$6.309\text{x}10^{-5}$	cubic meters per second (m^3/s)
million gallons per day	$4.381\text{x}10^{1}$	cubic decimeters per second (dm^3/s)
	$4.381\text{x}10^{-2}$	cubic meters per second (m^3/s)
	Mass	
tons (short)	$9.072\text{x}10^{-1}$	megagrams (Mg) or metric tons

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